

GEOTECHNOLOGY INC.

ENGINEERING AND ENVIRONMENTAL SERVICES

SAINT LOUIS • KANSAS CITY

November 30, 1993

2498.01.3120.01

Mr. Gerald Bonnot
Division of Design and Construction
State of Missouri - Office of Administration
P.O. Box 809
Jefferson City, Missouri 65102

Site: Hubert Wheeler ST School
ID # M00000093666
Break: 11.11
Other:
11-30-93

SUBSURFACE ASSESSMENT
PLAYGROUND SITE RESTORATION
HUBERT WHEELER STATE SCHOOL
ST. LOUIS, MISSOURI
Project No. 05-523-93-0001
Account Nos. 307-74536-1232
and 307-72876-0992

Dear Mr. Bonnot:

Presented in this report are the results of the Subsurface Assessment conducted for the above-referenced site. The assessment was conducted in general accordance with Geotechnology, Inc. Proposal P3995.00.3127 dated March 25, 1993.

We appreciate the opportunity to be of service to you. If you have any questions, please do not hesitate to contact me.

Yours very truly,

GEOTECHNOLOGY, INC.

Ed D. Alizadeh, P.E.
Principal

SLB/EDA:slb/tlp/mls

Copies submitted: (2)

cc: Mr. Ronald Littich, Director of Facilities
Missouri Department of Secondary and Elementary Education

30803253



Superfund



Site: Hubert Wheeler
Job #: 249801.SUB
Break: _____
Other: _____
130-93

**SUBSURFACE ASSESSMENT
PLAYGROUND SITE RESTORATION
HUBERT WHEELER STATE SCHOOL
5707 WILSON AVENUE
ST. LOUIS, MISSOURI
Project No. 05-523-93-0001(A)
Account Nos. 307-74536-1232
307-72876-0992**

Prepared for:

**STATE OF MISSOURI
DIVISION OF DESIGN AND CONSTRUCTION
Jefferson City, Missouri**

Prepared by:

**GEOTECHNOLOGY, INC.
St. Louis, Missouri**

November 30, 1993

2498.01.3120.01

RECEIVED
DEC 13 1993
MISSOURI DEPARTMENT OF
ENVIRONMENT
AGENCY FOR ENVIRONMENTAL
QUALITY
1000 SPRUCE ST
JEFFERSON CITY, MO 65101

REPORT#249801.SUB

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SUBSURFACE ASSESSMENT
PLAYGROUND SITE RESTORATION
HUBERT WHEELER STATE SCHOOL
5707 WILSON AVENUE
ST. LOUIS, MISSOURI

1.0 INTRODUCTION

1.1 Site Description. The Hubert Wheeler State School is located at 5707 Wilson Avenue in St. Louis, Missouri, as shown on Plate 1. The site is located north of Wilson Road just south of Interstate 44, in a mixed commercial and residential area. The Deaconess Hospital, Executives Examination Facility is located adjacent to the site on the west. Residential areas are located east and south of the site.

During recent years, a black tar-like material, resembling coal tar, has occasionally oozed from the ground surface in the courtyard area, at the northwest corner of the subject site. The oozing reportedly occurred more frequently during warm periods of the year. The school placed asphalt paving over the courtyard area to minimize the problems associated with the tar-like material. However, the material continues to ooze through the asphalt in various locations. In addition, several years ago, school maintenance personnel installed a concrete walkway from the asphalt playground to the school. During excavation for the walkway, the black material was reportedly "flowing" at a depth of approximately 3 feet. At least one drum was also discovered during the excavation.

1.2 Historical Documents Review. A 50 year chain of title search was completed and historical building and occupancy permits were reviewed in an attempt to identify previous owners and past uses of the site. In addition, available aerial photographs from photogrammetric reconnaissances conducted in 1960, 1964, and 1969 were reviewed to determine past land usage. Copies of the building and occupancy permits, aerial photographs, and the 50 year chain of title search are presented in Appendix A.

The information obtained from the historical documents review indicates that between 1907 and 1959 the site and surrounding area was controlled by a succession of property owners including Laclede Fire Brick Manufacturing Company, Laclede-Christy Company, and the H. K. Porter Company. The property was sold to Ann S. Dattilo in 1959 who leased the property to H. K. Porter Company and Jablonlow-Kom Theatres until the property was sold in 1966 to a consortium of investors for the Hampton Industrial Park. Building and occupancy permits indicate that between 1950 and 1967 office and warehouse facilities were constructed by St. Louis Coke and Foundry Supply and by M. W. Warren Coke Company. In addition, a warehouse facility constructed in 1960 for the St. Louis Coke and Foundry Supply was apparently used for the storage of V.M.P. Naptha.

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PID readings, above background levels, were detected in Borings B-1, B-3, and B-5. The soil sample yielding the highest PID reading for each of those borings was retained for subsequent laboratory analyses. The soil samples obtained from the remaining borings yielded PID readings which were non-detect. For those borings, the sample exhibiting visual oil staining or discoloration was retained for subsequent laboratory analyses. Soil samples were not obtained from Boring B-10A. The PID readings are summarized on the boring logs included in Appendix B.

One soil sample from each completed boring was submitted to Environmetrics, Inc. of Maryland Heights, Missouri for laboratory analyses. The soil samples were analyzed for priority pollutants including metals, volatiles, semi-volatiles, pesticides and PCB's, total cyanide, and total phenol by EPA Methods 6000/7000, 8240, 8270, 8080, 9012, and 9066, respectively. In addition to the priority pollutant analyses, the soil sample collected from Boring B-8 was analyzed for TCLP Lead using EPA Method 1311/7421, and the soil samples obtained from borings placed in the apparent coal tar seeps (B-8 and B-9) were screened for the presence of Dioxin using SOW Method 880.

3.0 RESULTS

3.1 Site Stratigraphy. The soil stratigraphy, as indicated by the soil borings, generally consisted of 6 to 8 feet of rubble fill consisting of brown and green silty clays with brick, gravel, sand, and cinders. Below the rubble fill was a medium stiff to stiff, brown or brown and gray, mottled silty clay which extended to the depth explored. Groundwater was not encountered at the depths explored. However, moist soils were encountered in Borings B-1, B-9, and B-10 and appeared to correspond with concentrated lenses of gravel, rock, and cinder fill.

3.2 Soil Sample Analytical Results. The analytical results detected several priority pollutant metals, volatile organics, and semi-volatile organics in the samples. The remainder of the parameters tested were either not detected or were detected at concentrations equal to or slightly above the analytical detection limit for the parameter tested.

The priority pollutant metals detected in the samples included, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc. While most of these metals were detected at concentrations which are likely considered background for the soils in this area, the concentrations of lead detected in the samples ranged from 14.5 to 338 parts per million (ppm). Total lead levels greater than 100 ppm were detected in samples obtained from 6 of the 10 borings and levels exceeding 300 ppm were detected in Borings B-3, B-6, and B-8. Following completion of the total metals analyses, the sample from Boring B-8 was submitted for TCLP Lead analyses to determine if the soils were characteristically hazardous due to lead. The analytical results for the TCLP analysis indicate a TCLP lead concentration of 0.123 ppm which is not hazardous in accordance with 40 CFR 261.24(b).

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A review of aerial photographs taken in 1960 and 1964 indicate the site was vacant with apparent landfilling operations occurring north and west of the site. Buildings and structures likely associated with the foundry and coke companies were located north of the site. By 1969, the site appeared abandoned, buildings previously located north of the site had been demolished and the landfilling operations appeared to have ceased.

2.0 SITE ASSESSMENT

2.1 Drilling Summary. Drilling activities were conducted on August 23 and 24, 1993. The borings were drilled using a CME 550 drill rig with 3-3/4 inch I.D. hollow stem augers. Continuous soil samples were collected with a split-spoon continuous sampler. The drilling and sampling activities were observed by a scientist from Geotechnology. The scientist obtained samples for analytical testing and prepared descriptive logs of the borings.

A high-pressure steam cleaner was utilized to decontaminate the hollow stem augers between borings. The augers were decontaminated utilizing a detergent wash solution followed by a thorough rinse with clean water. The sampling equipment was decontaminated between each use via a hand-brush wash of the disassembled components with a solution of laboratory detergent followed by a clean water rinse. Rinsate from the decontamination of drilling and sampling equipment was containerized and temporarily stored on-site pending waste characterization and disposal permitting.

A total of ten borings were completed at the site. One additional boring adjacent to and south of the concrete pad, located east of the courtyard area, was terminated at a depth of approximately 4 feet; limestone rock, likely related to a previous excavation performed in the vicinity of the concrete pad, was encountered. The completed borings were terminated at a depth of 10 feet. Bedrock was not encountered in the borings at the depths explored. The borings were backfilled with soil cuttings following completion of each boring. Excess cuttings were containerized in 55-gallon drums and were stored temporarily on-site pending waste characterization and disposal permitting.

The boring locations, shown on Plate 1, are approximate and were measured from existing on-site features. The locations of Borings B-8, B-9, B-10A, and B-10 were revised from those depicted in the sampling plan, in an effort to locate the source of the apparent coal tar seeps in the area. Descriptive boring logs and a legend are included as Appendix B.

2.2 Field Screening and Sampling Program. The soil samples were observed for visual staining and field-screened for the presence of volatile organics using a Photovac Microtip photoionization detector (PID). The PID was calibrated to an isobutylene standard of 100 parts per million (ppm) at the beginning of each day.

The priority pollutant volatile organics detected in the samples were detected at low levels (less than 0.15 ppm) and included, toluene, ethylbenzene, xylene, chloromethane, acetone, methylene chloride, and bromomethane. In addition, while methylene chloride was detected in each of the samples, it was also detected in the laboratory method blank indicating possible laboratory contamination.

Numerous semi-volatile organics, typical of coal-tar contamination, were detected in Borings B-1, -2, -3, -4, -5, -6, -8, and -10. Semi-volatile organics were not detected in Boring B-7 which was placed west of the asphalt play ground area. In addition, semi-volatile organics were not detected at Boring B-9 which was placed into an apparent coal tar seep. However, due to matrix interference in the sample, the lab was not able to obtain an analytical detection limit below 6.1 ppm for that sample. Therefore it is possible that semi-volatile organics were present in the Boring B-9 sample at concentrations below 6.1 ppm. The highest concentrations of semi-volatile organics contamination were detected in the vicinity of Borings B-6 and B-10. Tables 1 and 2 summarize the analytical results for the metals and semi-volatile organics detected in the samples. The analytical results sheets for the samples collected from the borings are presented in Appendix C.

4.0 CONCLUSIONS

4.1 General Assessment. Based on visual observations of the soil samples collected from the borings, significant subsurface deposits of tar-like material were not encountered by the borings. There was however, visual evidence of discolored soils and soil staining observed in the samples obtained from the borings. The discolored or stained soils were for the most part limited to the rubble fill and did not extend into the naturally occurring soils which were encountered at depths of 8 to 10 feet below ground surface.

The analytical results indicate semi-volatile organic contamination typical of residual coal tar contamination. In addition, elevated levels of lead were detected in near surface soils collected from Borings B-8, B-6, and B-3. The elevated concentrations of lead do not appear to be related to the apparent coal tar contamination as the samples with the highest lead levels were not the samples with the highest semi-volatile organics.

The highest levels of semi-volatile organics contamination were detected in the vicinity of Borings B-6 and B-10. The location of these borings, when compared with other borings (B-1, B-8, and B-3) with lesser contamination located in close proximity to the area where apparent coal tar wastes were previously removed, indicates there may be additional sources of coal tar like wastes. In addition, it may also be possible, that soil contamination detected at the site, is due to the placement of contaminated fill material and not related to additional leaking sources of coal tar like wastes. In either case, the extent of coal tar and/or lead contamination has not been defined and may extend to other locations of the site.

As indicated previously in the report, the upper 6 to 8 feet of the courtyard area consists of rubble fill including brown and green silty clays, brick, gravel, sand, and cinders. Historical areal photographs appear to document filling operations at the site and areas north and west of the site during the early 1960's. The title summary and building and occupancy records indicate the site and surrounding areas were owned and/or operated by St. Louis Coke and Foundry Supply and by M. W. Warren Coke Company during that period. These facilities were likely involved with the apparent filling operations in the sixties and are likely sources for the types of contaminants identified at the site.

4.2 Regulatory Considerations. Based on present data, it is apparent that soil contamination has resulted from the previous operations at the site. It is our understanding that environmental regulatory agencies, such as the Missouri Department of Natural Resources (MDNR) or the Environmental Protection Agency (EPA), have not been involved at this site. These agencies, when informed of a release or potential release of a hazardous substance, will determine if additional investigation or remediation is warranted. This determination is made based on the types of hazardous substances identified, the quantities or concentrations of those substances present at the site, and the risk those substances pose to public health and the environment. Regulatory cleanup standards and/or action levels which trigger additional investigation or remediation are typically site specific and vary from site to site based on current use of the site and the potential for exposure to the public and damage to the environment. In the absence of established, site-specific regulatory action levels, estimated action levels can be established based on previously promulgated standards and on data developed by the USEPA for the Resource Conservation And Recovery Act (RCRA) and the Comprehensive Environmental Response Compensation And Liability Act (CERCLA or Superfund) programs.

The data developed by the USEPA can be utilized to develop quantitative risk assessment values for many chemical substances which do not have promulgated clean-up standards. By employing the verified Reference Dose (RfD) available from the USEPA IRIS on-line database, risk assessment values can be calculated for soil ingestion rates. The calculations presented in Appendix D are based on USEPA-established procedures and provide risk-based action levels for soil cleanup of Fluoranthene, Pyrene, Benzo(a)pyrene, Benzo(b)fluoranthene, and Chrysene.

When available, action levels may be based on risk based health standards previously established by various Health or Environmental Regulatory agencies. Lead is one such substance which has been widely studied by various Health and Environmental Agencies. The EPA and the Missouri Department of Health (DOH) both have established health based standards for lead in near surface soils at residential areas. While the two standards are different, with the DOH setting more conservative levels, these standards provide reasonable indications of cleanup levels for lead contaminants at the site.

The estimated soil cleanup action levels for the site are presented in Table 3. As indicated previously, we have estimated the levels on previously promulgated standards or guidelines

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established by the DOH, MDNR, and the USEPA and on risk-based action level calculations established by the USEPA. The actual cleanup levels for this site will be determined by the regulatory agencies.

5.0 RECOMMENDATIONS

Based on the information obtained from the investigation and discussed above we offer the following recommendations for your consideration.

- Additional investigations should be performed in an attempt to locate additional buried drums at the site and to define the full extent of soil contamination. We recommend a magnetometer/gradiometer survey be conducted in an attempt to identify magnetic anomalies indicative of buried metal. Exploratory excavations could then be performed to identify the source or sources of any magnetic anomalies identified at the site.
- Following completion of the magnetometer/gradiometer survey, a remedial investigation plan should be developed and submitted to the MDNR along with the information generated during previous investigations, for their concurrence with planned investigations and to obtain site specific clean-up levels for the site.

TABLE 1
ANALYTICAL RESULTS SUMMARY - METALS

METALS DETECTED	BORINGS									
	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10
Arsenic	4.33	7.97	7.65	7.95	6.07	8.81	8.97	9.55	6.93	7.42
Beryllium	0.525	0.620	0.852	0.646	0.335	0.387	0.693	0.408	0.565	0.514
Cadmium	0.830	0.907	1.34	0.581	0.656	1.22	0.713	0.806	0.865	1.77
Chromium	14.9	18.9	13.7	21.0	12.2	62.2	18.6	12.0	13.2	9.62
Copper	17.6	29.4	35.5	13.3	9.68	54.5	15.3	13.9	20.2	13.3
Lead (total)	192	139	303	40.7	79.9	308	14.5	338	115	33.6
Lead (TCLP)	NA	NA	NA	NA	NA	NA	NA	0.123	NA	NA
Mercury	0.14	0.47	0.25	ND	0.26	0.63	ND	ND	0.11	0.39
Nickel	15.8	18.9	17.9	16.8	10.9	13.8	19.8	11.6	18.3	13.7
Selenium	ND	0.391	0.635	ND	ND	0.332	ND	0.520	0.530	ND
Silver	0.500	0.729	ND	0.586	ND	ND	ND	ND	0.720	0.986
Zinc	114	113	293	64.6	80.8	232	50.6	163	98.0	44.5

1 - Analytical Results are presented as Parts Per Million (mg/kg, mg/l)

NA - Parameter not analyzed

ND - Parameter not detected above the analytical detection limit

TABLE 2
ANALYTICAL RESULTS SUMMARY
SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS DETECTED	BORINGS									
	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10
2-methynaphthalene	.055	ND	ND	ND	0.160	ND	ND	.15	ND	2.4
Acenaphthyene	.072	ND	0.080	ND	0.71	ND	ND	.110	ND	1.4
Acenaphthlene	1.04	ND	0.150	ND	0.69	ND	ND	2.1	ND	8.2
Dibenzofuran	.610	ND	0.085	ND	0.44	ND	ND	1.2	ND	4.5
Flourene	1.3	ND	0.130	ND	0.57	ND	ND	2.3	ND	6.7
Phenanthrene	12.0	0.32	1.8	.120	6.1	33.0	ND	23.0	ND	83.0
Anthracene	2.9	ND	0.35	ND	1.2	7.2	ND	6.5	ND	16.0
Carbazole	1.4	ND	0.16	ND	0.82	ND	ND	3.0	ND	12.0
Di-n-butylphthalate	0.17	0.15	0.58	.081	ND	ND	ND	.068	ND	ND
Fluoranthene	13.0	0.31	2.4	.120	8.4	36.0	ND	28.0	ND	104.0
Pyrene	8.6	0.28	2.5	.106	6.4	35.0	ND	20.0	ND	93.0
Benzo(a)anthracene	5.0	0.13	1.2	ND	3.4	14.0	ND	12.0	ND	45.0
Chrysene	4.2	0.16	1.3	.056	3.3	15.0	ND	12.0	ND	54.0
Benzo(b)Fluoranthene	5.3	0.20	1.9	.089	5.2	16.0	ND	14.0	ND	62.0
Benzo(k)Fluoranthene	1.7	0.074	0.52	ND	0.45	7.0	ND	4.6	ND	29.0
Benzo(a)Pyrene	3.8	0.048	1.07	ND	3.0	13.0	ND	9.8	ND	41.0
Indeno(1,2,3-cd)pyrene	1.8	0.082	0.57	ND	1.4	5.5	ND	4.7	ND	18.0
Dibenzo(a,h)anthracene	0.46	ND	0.17	ND	0.42	ND	ND	1.4	ND	6.0
Benzo(g,h,i)perylene	1.6	0.077	0.56	ND	1.4	5.1	ND	4.3	ND	18.0
Naphthalene	ND	ND	ND	0.26	ND	ND	ND	.16	ND	3.9

1 - Analytical Results are presented as Parts Per Million (mg/kg, mg/l)

NA - Parameter not analyzed

ND - Parameter not detected above the analytical detection limit

TABLE 3**ESTIMATED SOIL ACTION LEVELS**

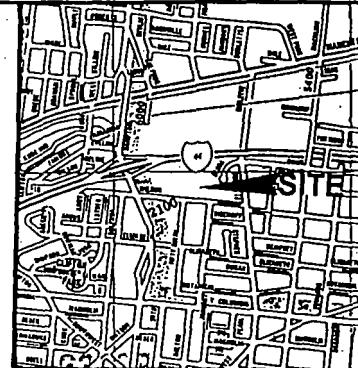
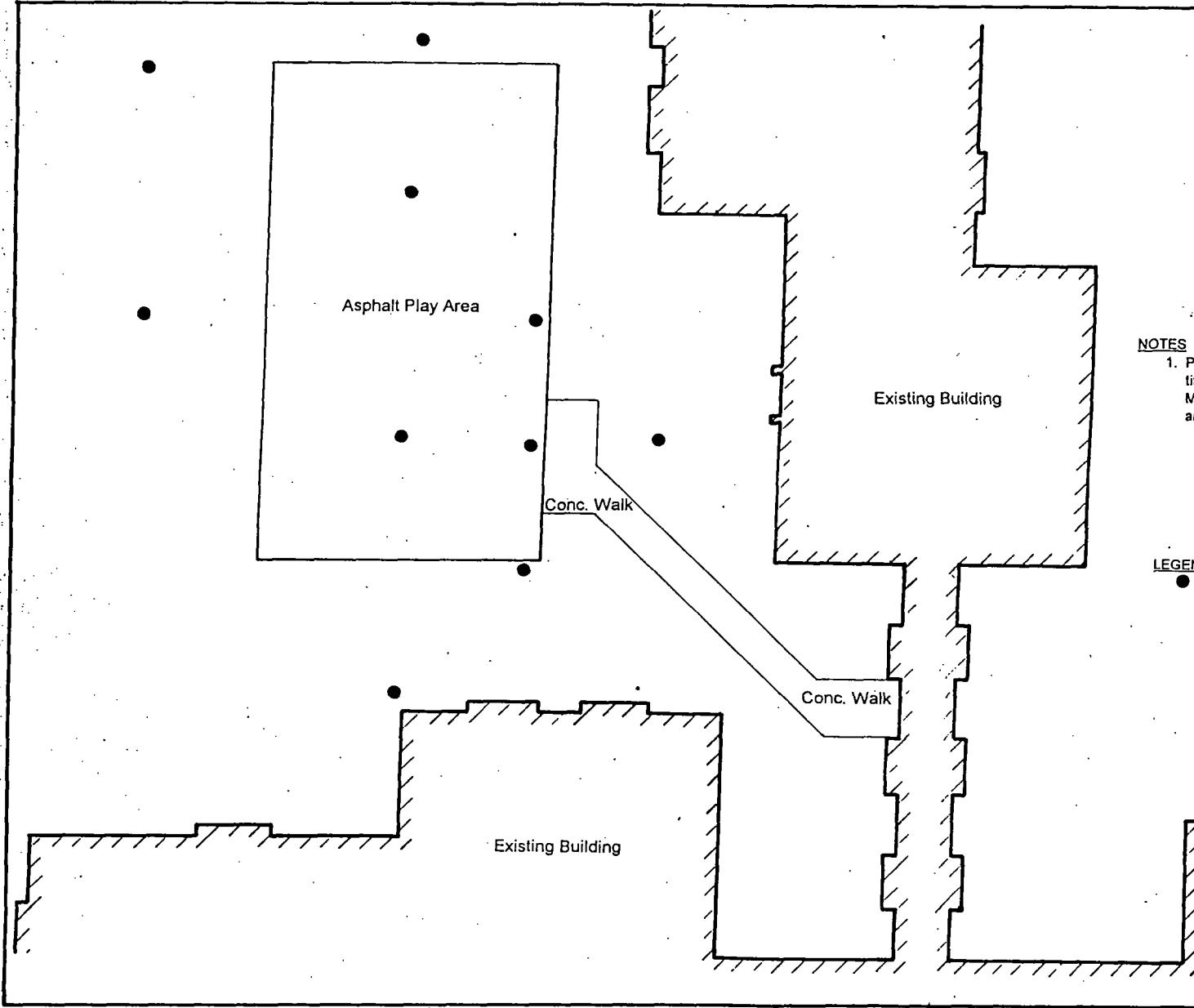
CONTAMINANT	MAXIMUM CONTAMINANT LEVEL DETECTED (ppm)	ESTIMATED SOIL ACTION LEVEL (ppm)
Fluoranthene	104.0	3,200
Pyrene	93.0	1,600
Benzo(b)fluoranthene	62.0	0.96
Chrysene	54.0	9.6
Benzo(a)pyrene	41.0	0.096
Lead	338.0	240 ¹ 500 ²

¹ Missouri Department of Health standard for lead in surface soils at residential areas.

² Environmental Protection Agency health based standard for lead in surface soils at residential areas.

APPENDIX A
HISTORICAL DOCUMENTS

2498.01.3120.01

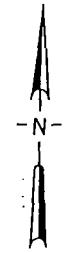


NOTES

1. Plan adapted from a drawing dated September 6, 1978 titled "Site Plan", prepared and supplied by State of Missouri Office of Administration Division of Design and Construction.

LEGEND

- Proposed Boring Location



0 20 40
SCALE IN FEET

 GEOTECHNOLOGY INC
ENGINEERING AND ENVIRONMENTAL SERVICES
SAINT LOUIS • KANSAS CITY

Hubert Wheeler School - Restoration
St. Louis, Missouri

**PLAN OF SITE AND
PROPOSED BORING LOCATIONS**

Drawn by: <i>WAH</i>	Cr'd. by: <i>EPA</i>	App'd. by: <i>EPA</i>
Date 7-26-93	Date <i>11-1-93</i>	Date <i>11-1-93</i>







Lawyers Title Company
of Missouri

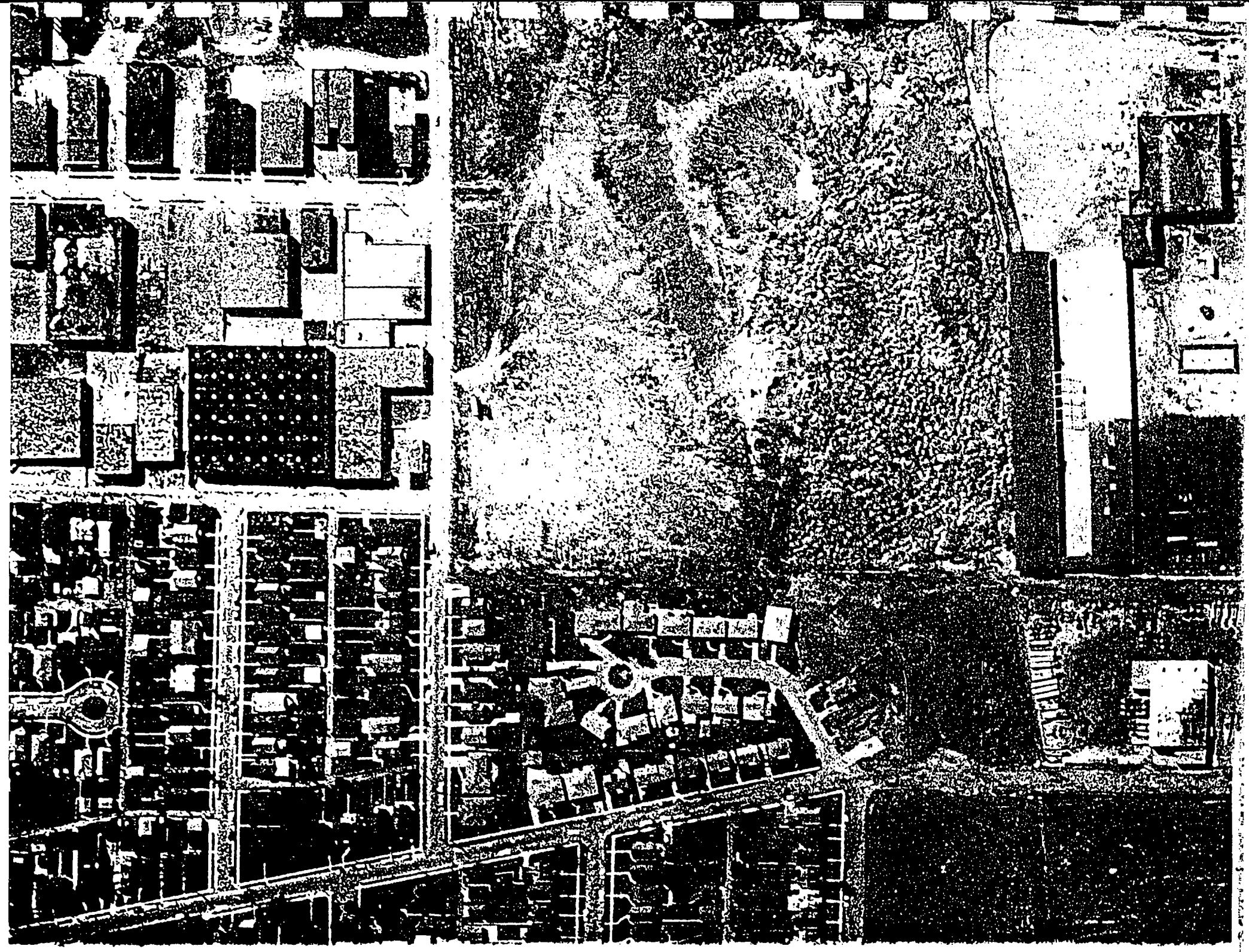
Geotechnology, Inc.
2258 Grissom Drive
St. Louis, Missouri 63146

Attention: Sam Brenneke

50 Year Chain of Title Report of conveyance deeds that transfer ownership and any leases of record for the following described property:

Lots 29, 30, 31, 32, 33 and part of Lots 27 and 28 in Block 2 of Cheltenham, Lots 21, 22, 23 and part of Lot 20 of Wible's Eastern Addition to Cheltenham, together with the Western 36 feet of former January Avenue vacated under the provisions of Ordinance No. 52058, and in Blocks 4022 and 4023 of the City of St. Louis, more particularly described as follows:

Beginning at a point in the North line of Wilson Avenue, 40 feet wide, at its intersection with a line 36 feet East of and parallel to the West line of former January Avenue, 60 feet wide, as vacated under the provisions of Ordinance No. 52058; thence North 82 degrees 57 minutes 15 seconds West along said North line of Wilson Avenue a distance of 355.20 feet to a point; thence North 8 degrees 15 minutes 30 seconds East a distance of 472.56 feet to a point in the Southerly Right-of-Way line of Interstate Highway I-44; thence in an Easterly direction along said Right-of-Way line North 87 degrees 03 minutes 45 seconds East a distance of 25.59 feet to an angle point being located in the Eastern line of Lot 20 of Wible's Eastern Addition to Cheltenham, said point being 477 feet North along the Eastern line of said Wible's Addition from the Northern line of Wilson Avenue, 40 feet wide; thence South 87 degrees 53 minutes 03 seconds East and along said I-44 Right-of-Way line 295.71 feet to a point in the West line of said former January Avenue vacated as aforesaid at a point being 502.42 feet North along said line from the Northern line of Wilson Avenue; thence North 74 degrees 42 minutes 01 seconds East along the South Right-of-Way line of I-44 a distance of 39.27 feet to a point in a line 36 feet East of and parallel to said West line of former January Avenue, vacated as aforesaid; thence South 8 degrees 15 minutes 30 seconds West along said line 36 feet East of the West line of former January Avenue, vacated as aforesaid, a distance of 517.36 feet to the point of beginning.



PERMIT No.	LOCATION	DATE	BLOCK No.
c9217	2064 Hampton	2-15-67	4022
USE	wreck 1 sty. fr. bldg. & 1-2sty brick & steel bldg.	COST	22000
OWNER Mo. State Highway			
Application Rec'd.	ROUTE #1	ROUTE #2	ROUTE #3
FEB 9 1967	FEB 9 1967		
REMARKS:			

PERMIT No.	LOCATION	DATE	BLOCK No.
C5558	1529 Sublette	6-17-66	4022
USE	Erect 1-1 story aluminum addition	COST	61500.00
OWNER St. Louis Coke & Foundry Supply			
Application Rec'd.	ROUTE #1	ROUTE #2	ROUTE #3
MAR 30 1966	APR 8 1966		
REMARKS:			

PERMIT NO.	LOCATION	DATE	BLOCK NO.
EE 6124	1525 Sublette	12-9-60	4022
CO 9294 USE	OP 8460 Office-warehouse-V.M.P.Naptha	COST	Oc. Permit

OWNER St. Louis Coke & Foundry Supply

ARCHITECT

Warranty Deed recorded June 29, 1907 in Book 2046 page 90 from Laclede Fire Brick Manufacturing Company to Alexander R. Russell;

Warranty Deed recorded June 29, 1907 in Book 2030 page 478 from Alexander R. Russell to Laclede-Cristy Company;

Quit Claim Deed recorded January 2, 1959 in Book 7912 page 586 from Laclede-Cristy Company to H. K. Porter Company, Inc.;

Warranty Deed recorded May 29, 1959 in Book 7960 page 559 from H.K. Porter Company, Inc. to Ann S. Dattilo;

Lease recorded May 29, 1959 in Book 7966 page 29 by and between Ann S. Dattilo as Landlord and H.K. pORTER cOMPANY, iNC. as Tenant. (term 5 years);

Lease recorded August 13, 1965 in Book 8617 page 122 by and between Ann S. Dattilo, Lessor and Jablonow-Komm Theatres, Inc. as Lessee (term 15 years with 10 year option);

Quit Claim Deed recorded June 9, 1966 recorded in Book 8686 page 316 from Ann S. Dattilo to Raymond J. McManemin, Lawrence J. Camie, Carl C. Sciuto, Calogero Rallo, Salvatore Rallo, Nick Rallo, Peter J. Rallo, Joseph S. Rallo and Charles Rallo, Jr. D/B/A Hampton Industrial Park the percentage being 21%, 21%, 16%, 7%, 7%, 7%, 7%, 7% respectively.

NOTE: Western 36 feet of abandoned January are not included in this conveyance.

Warranty Deed recorded April 16, 1968 recorded in Book 8828 page 360 from above parties and their spective spouses to State Department of Education, Herbert Wheeler, Commissioner.

NOTE: No spouse or marital status listed for Calogero Rallo.

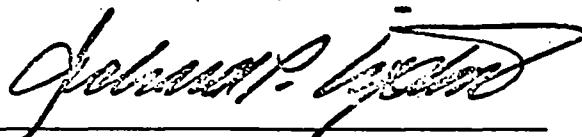
NOTE: This conveyance includes the Western 36 feet of abandoned January Avenue, not conveyed to grantors above.

Lawyers Title Company of Missouri assumes no liability over the amount paid for this report.

Effective date: July 19, 1993
K-25965

LAWYERS TITLE COMPANY OF MISSOURI

By: _____



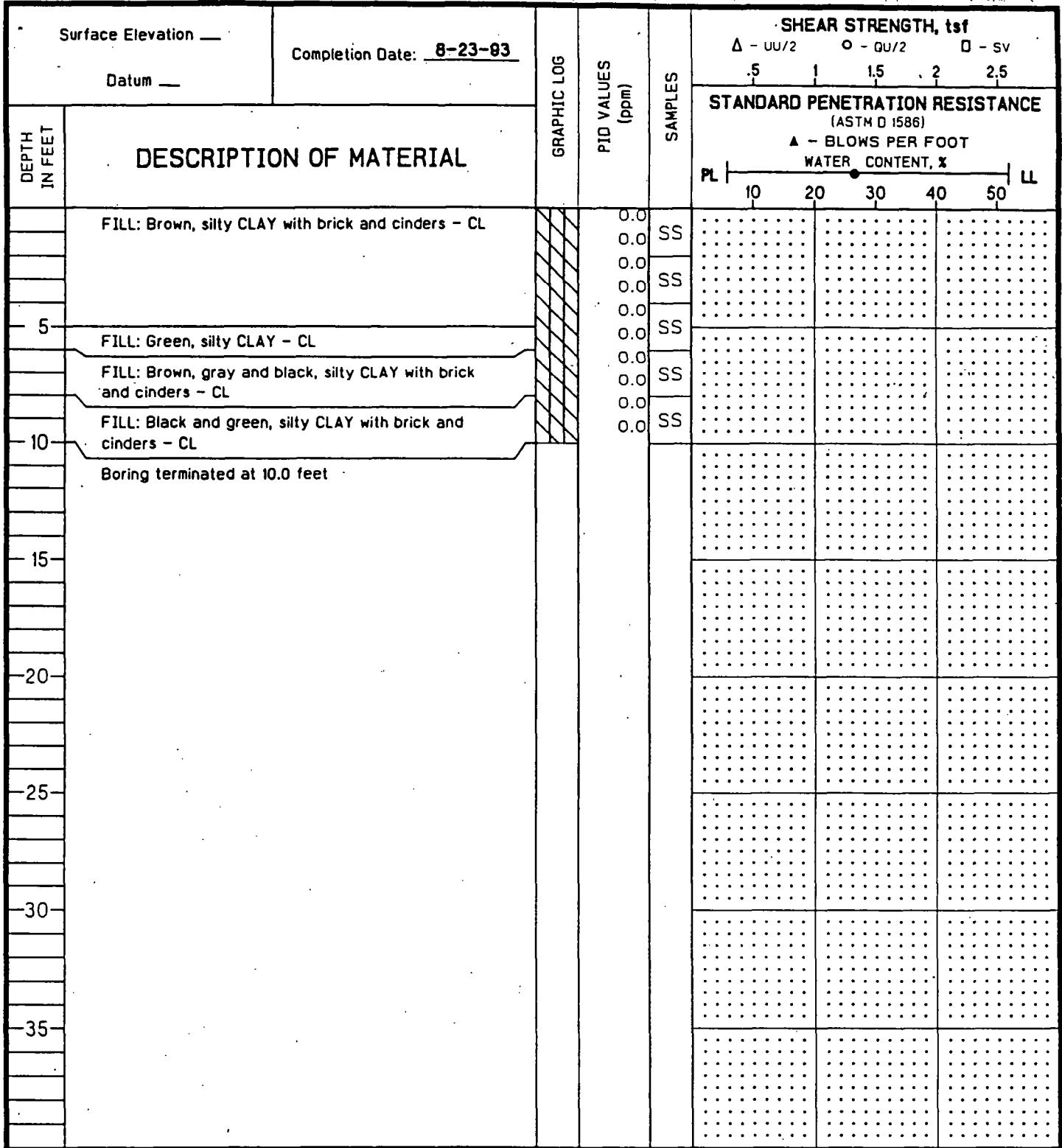
APPENDIX B
BORING LOGS AND LEGEND

PERMIT No.	LOCATION	DATE	BLOCK No.
S 4152	1529 Sublette	4-12-50	4022
USE	COST		
Erect 1 stv. metal office & whse.		58,000.00	
OWNER	M. W. Warren Coke Co.		
ARCHITECT			
FORM NO. 277-M			

PERMIT No.	LOCATION	DATE	BLOCK No.
U 5384	1529 Sublette	11-18-50	4022
USE	Erect 1 stv. fr. priv. gar		\$ 1500
OWNER	M. W. Warren Coke Co.		
ARCHITECT			
FORM NO. 277-M			

PERMIT No.	LOCATION	DATE	BLOCK No.
H6636	1931 Forest	4-19-26	4022
USE	cost		
1 story frame shed		\$350.00	
OWNER	O. E. Barkley		
ARCHITECT			
2642			

NOTE: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.



GROUNDWATER DATA

ENCOUNTERED AT FEET
AT AFTER HOURS
AT AFTER HOURS
X FREE WATER NOT
ENCOUNTERED DURING DRILLING

DRILLING DATA

AUGER 3 3/4" HOLLOW STEM
WASHBORING FROM FEET
PG DRILLER SLB LOGGER
CME 550 DRILL RIG

REMARKS:

SEE NOTATION SHEET FOR DESCRIPTION OF ABBREVIATIONS

Drawn by: SH Ck'd. by: ScB App'd. by: FDA
Date: 9-7-93 Date: 10/4/93 Date: 11/2/93

GEOTECHNOLOGY, INC
ENGINEERING AND ENVIRONMENTAL SERVICES

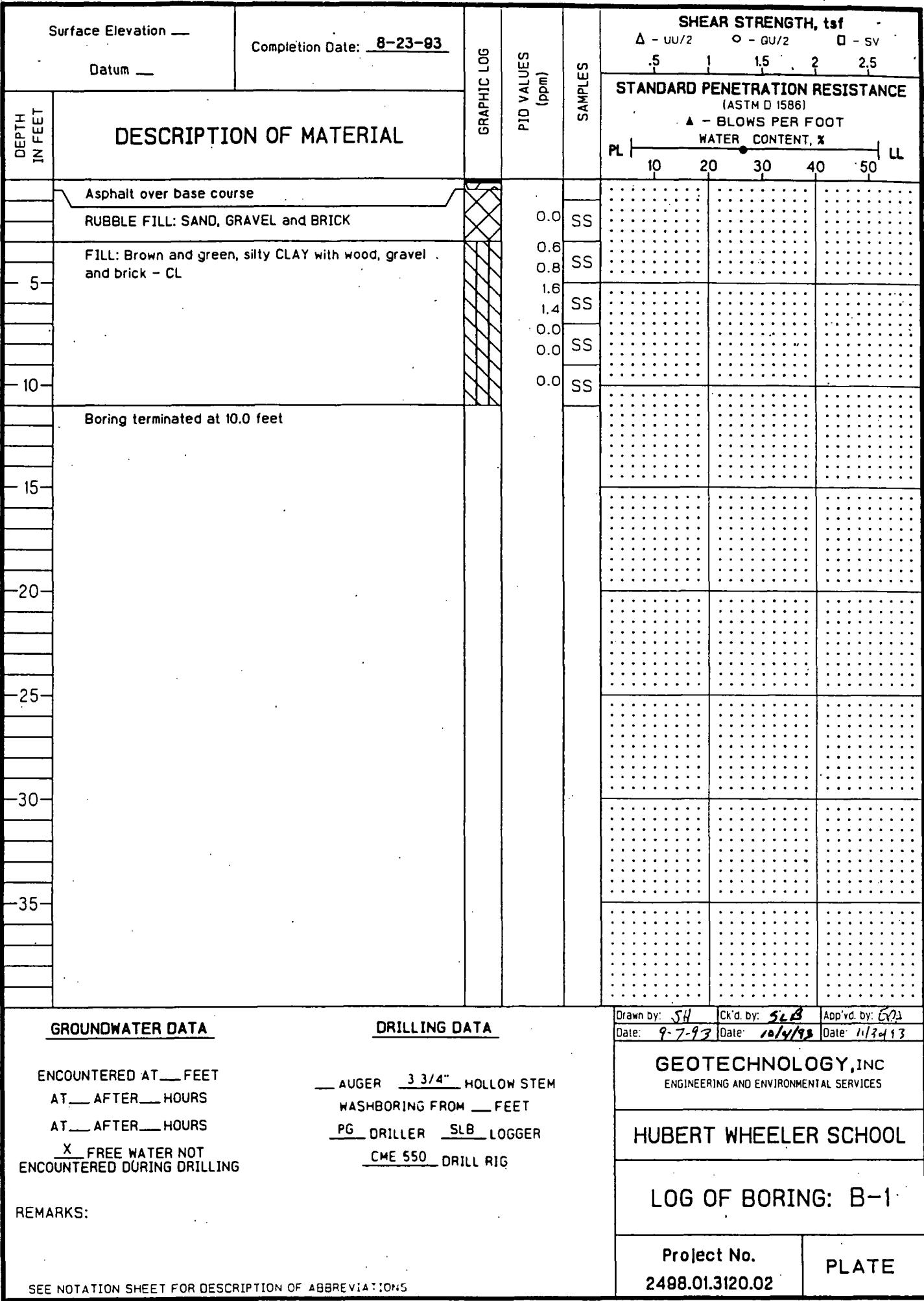
HUBERT WHEELER SCHOOL

LOG OF BORING: B-2

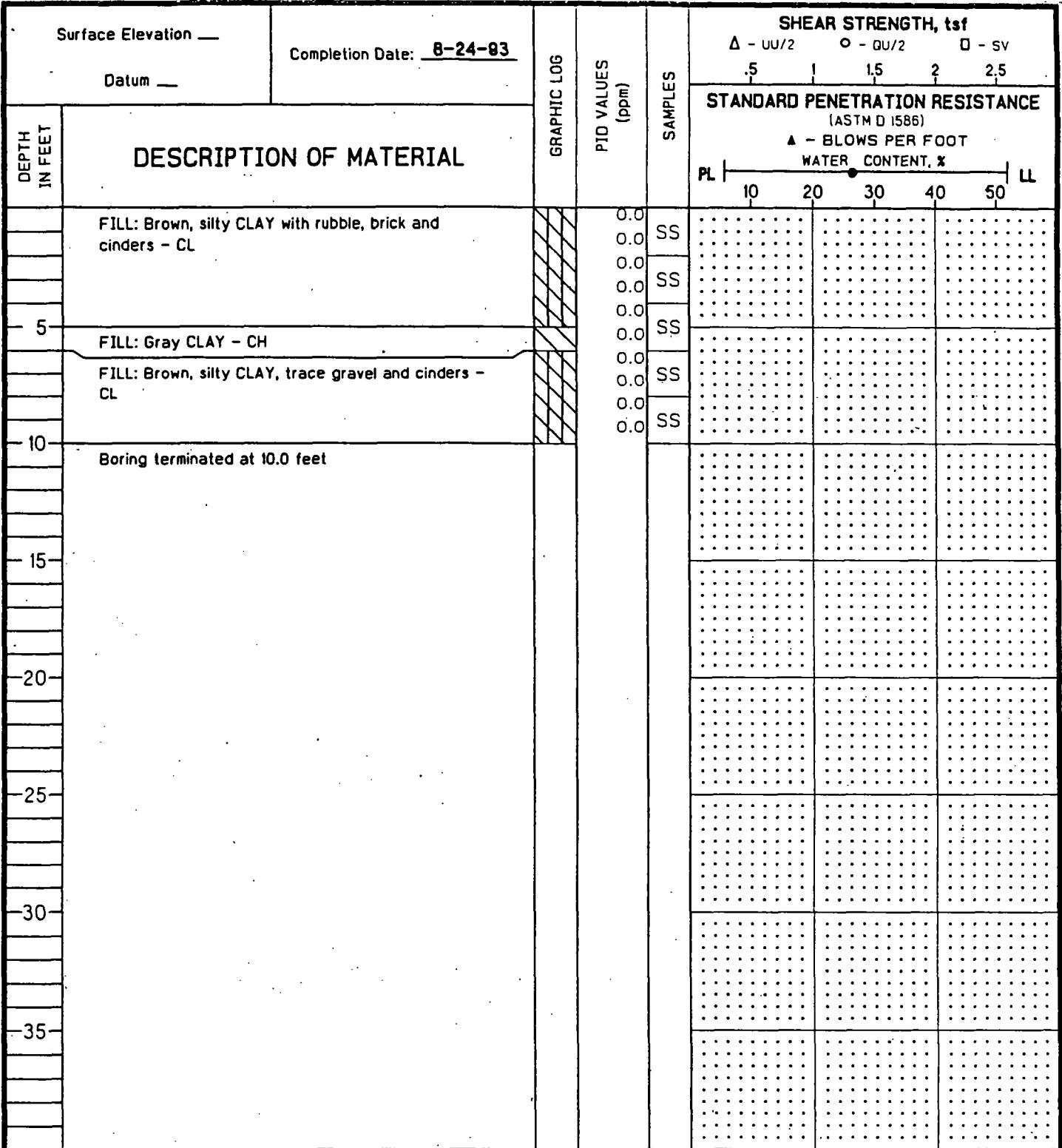
Project No.
2498.01.3120.02

PLATE

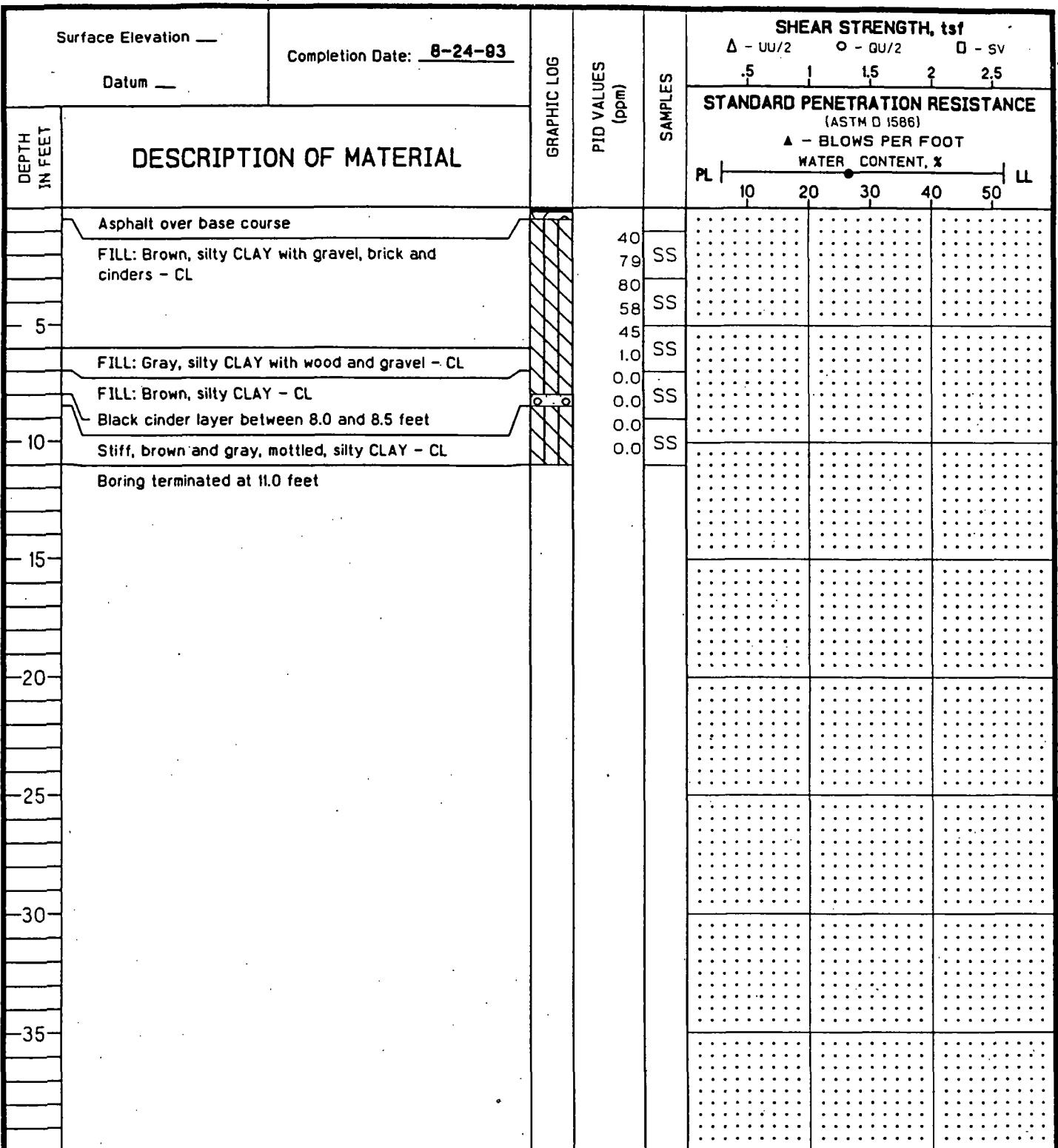
NOTE: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.



NOTE: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.



NOTE: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.



GROUNDWATER DATA

ENCOUNTERED AT FEET
 AT AFTER HOURS
 AT AFTER HOURS
 X FREE WATER NOT
 ENCOUNTERED DURING DRILLING

DRILLING DATA

AUGER 3 3/4" HOLLOW STEM
 WASHBORING FROM FEET
 PG DRILLER SLB LOGGER
 CME 550 DRILL RIG

REMARKS:

SEE NOTATION SHEET FOR DESCRIPTION OF ABBREVIATIONS

Drawn by: SJL Chkd by: SLB App'd by: EOA
 Date: 9-7-93 Date: 10/4/93 Date: 11/3/93

GEOTECHNOLOGY, INC
 ENGINEERING AND ENVIRONMENTAL SERVICES

HUBERT WHEELER SCHOOL

LOG OF BORING: B-3

Project No.
2498.01.3120.02

PLATE

NOTE: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL. GRAPHIC LOGS FOR ILLUSTRATION PURPOSES ONLY.

GROUNDWATER DATA

ENCOUNTERED AT FEET
AT AFTER HOURS
AT AFTER HOURS
X FREE WATER NOT
ENCOUNTERED DURING DRILLING

DRILLING DATA

AUGER 3 3/4" HOLLOW STEM
WASHBORING FROM FEET
PG DRILLER SLB LOGGER
CME 550 DRILL RIG

Drawn by: <u>SH</u>	Ck'd. by: <u>SCB</u>	App'vd. by: <u>EOA</u>
Date: <u>9-2-93</u>	Date: <u>10/4/93</u>	Date: <u>11/7/93</u>

GEOTECHNOLOGY, INC.

HUBERT WHEELER SCHOOL

LOG OF BORING: B-6

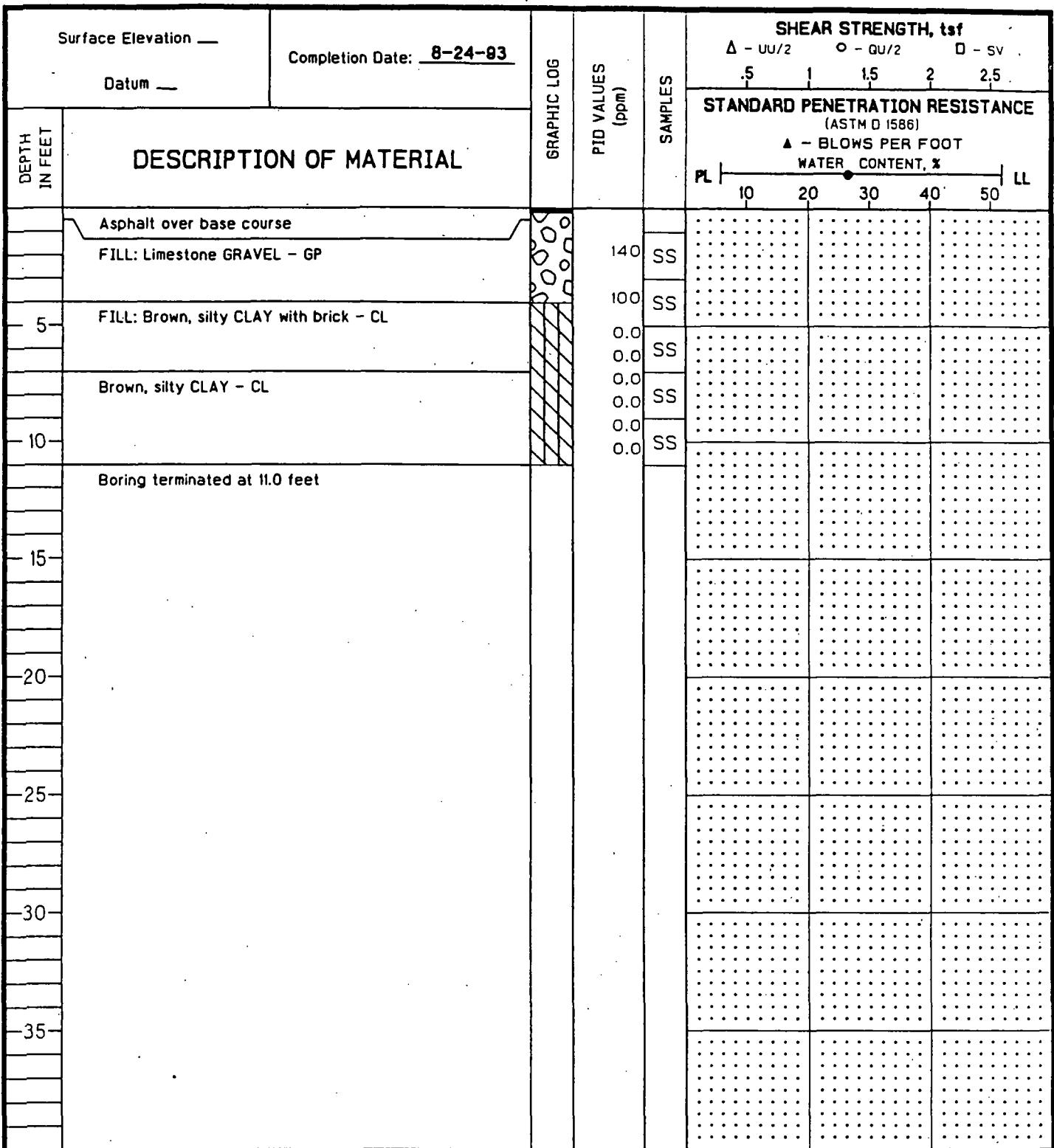
REMARKS:

SEE NOTATION SHEET FOR DESCRIPTION OF ABBREVIATIONS

Project No.
2498.01.3120.02

PLATE

NOTE: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.



GROUNDWATER DATA

ENCOUNTERED AT FEET
 AT AFTER HOURS
 AT AFTER HOURS
 FREE WATER NOT
 ENCOUNTERED DURING DRILLING

DRILLING DATA

 AUGER 3 3/4" HOLLOW STEM
 WASHBORING FROM FEET
PG DRILLER SLB LOGGER
CME 550 DRILL RIG

REMARKS:

Drawn by: SH Ck'd. by: SLB App'd. by: ENR
 Date: 9-7-93 Date: 10/1/93 Date: 11/3/93

GEOTECHNOLOGY, INC
 ENGINEERING AND ENVIRONMENTAL SERVICES

HUBERT WHEELER SCHOOL

LOG OF BORING: B-5

Project No.
2498.01.3120.02

PLATE

NOTE: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.

GROUNDWATER DATA

ENCOUNTERED AT FEET
AT AFTER HOURS
AT AFTER HOURS
X FREE WATER NOT
ENCOUNTERED DURING DRILLING

REMARKS:

DRILLING DATA

AUGER 3 3/4" HOLLOW STEM
WASHBORING FROM FEET
PG DRILLER SLB LOGGER
CME 550 DRILL RIG

Drawn by: SH	Ch'd. by: SLC	App'vd. by: CDA
Date: 9-7-93	Date: 10/1/93	Date: 11/3/93

GEOTECHNOLOGY, INC.
ENGINEERING AND ENVIRONMENTAL SERVICES

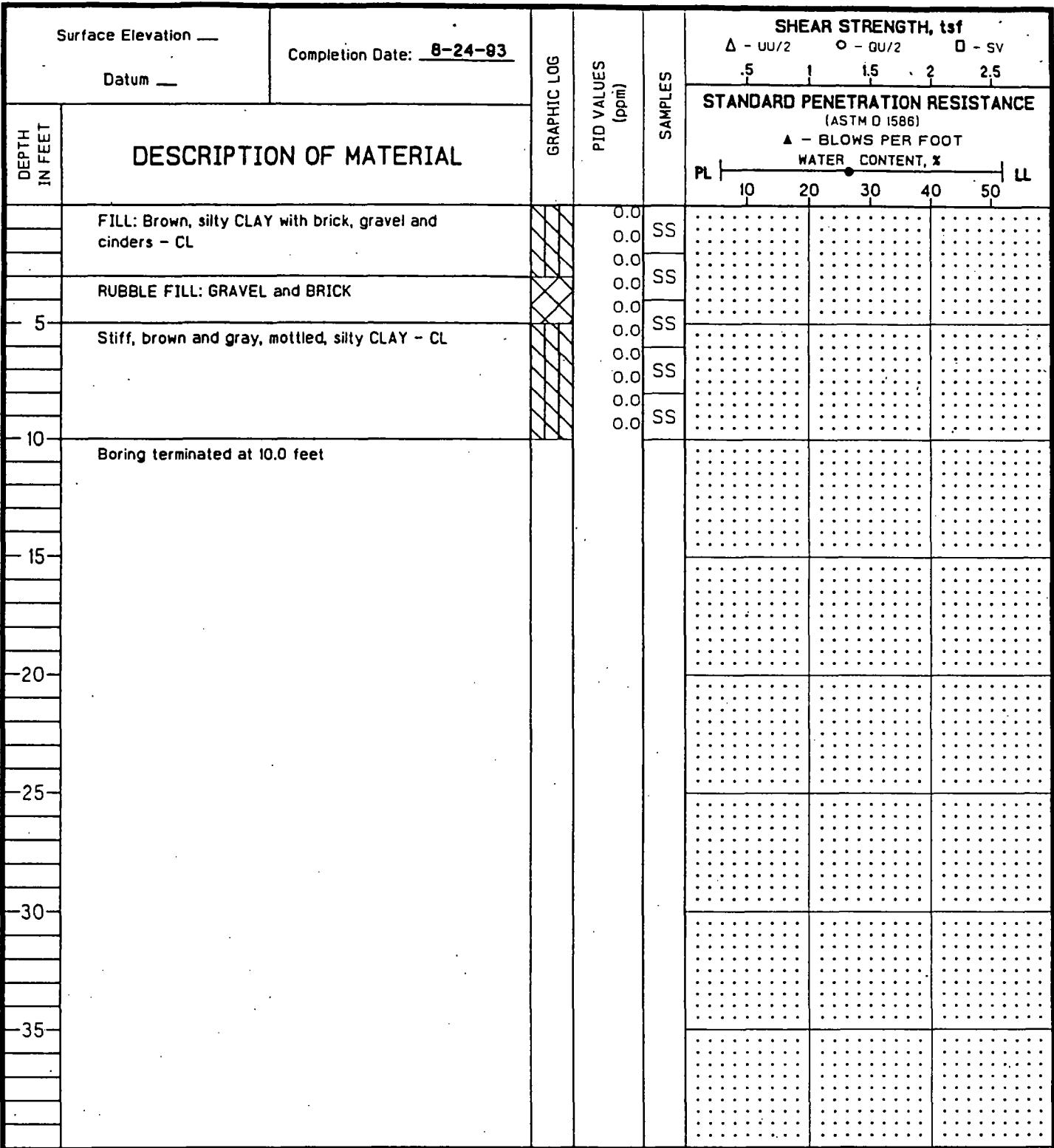
HUBERT WHEELER SCHOOL

LOG OF BORING: B-8

Project No.
2498.01.3120.02

PLATE

NOTE: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.



GROUNDWATER DATA

ENCOUNTERED AT FEET
 AT AFTER HOURS
 AT AFTER HOURS
X FREE WATER NOT
 ENCOUNTERED DURING DRILLING

DRILLING DATA

AUGER 3 3/4" HOLLOW STEM
WASHBORING FROM FEET
PG DRILLER SLB LOGGER
CME 550 DRILL RIG

REMARKS:

SEE NOTATION SHEET FOR DESCRIPTION OF ABBREVIATIONS

Drawn by: SH Chkd. by: SLB App'd by: Z-JJ
 Date: 9-7-93 Date: 10/4/93 Date: 9/3/93

GEOTECHNOLOGY, INC
ENGINEERING AND ENVIRONMENTAL SERVICES

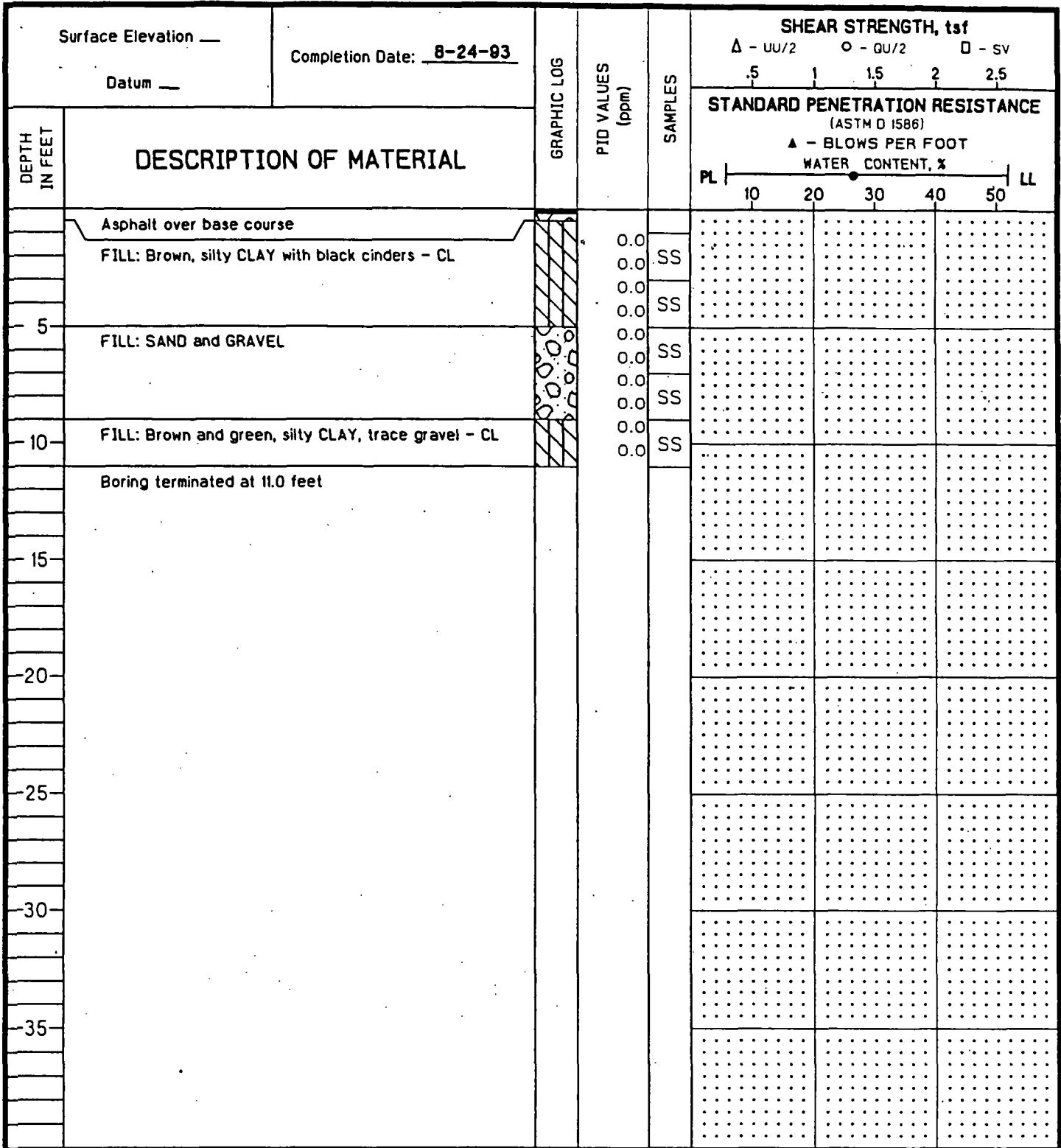
HUBERT WHEELER SCHOOL

LOG OF BORING: B-7

Project No.
2498.01.3120.02

PLATE

NOTE: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.



GROUNDWATER DATA

ENCOUNTERED AT FEET
 AT AFTER HOURS
 AT AFTER HOURS
 X FREE WATER NOT
 ENCOUNTERED DURING DRILLING

DRILLING DATA

AUGER 3 3/4" HOLLOW STEM
WASHBORING FROM FEET
PG DRILLER SLB LOGGER
CME 550 DRILL RIG

REMARKS:

SEE NOTATION SHEET FOR DESCRIPTION OF ABBREVIATIONS

Drawn by: SH Chkd. by: SCB App'd. by: GD
 Date: 9-7-93 Date: 10-14-93 Date: 11/3/13

GEOTECHNOLOGY, INC
 ENGINEERING AND ENVIRONMENTAL SERVICES

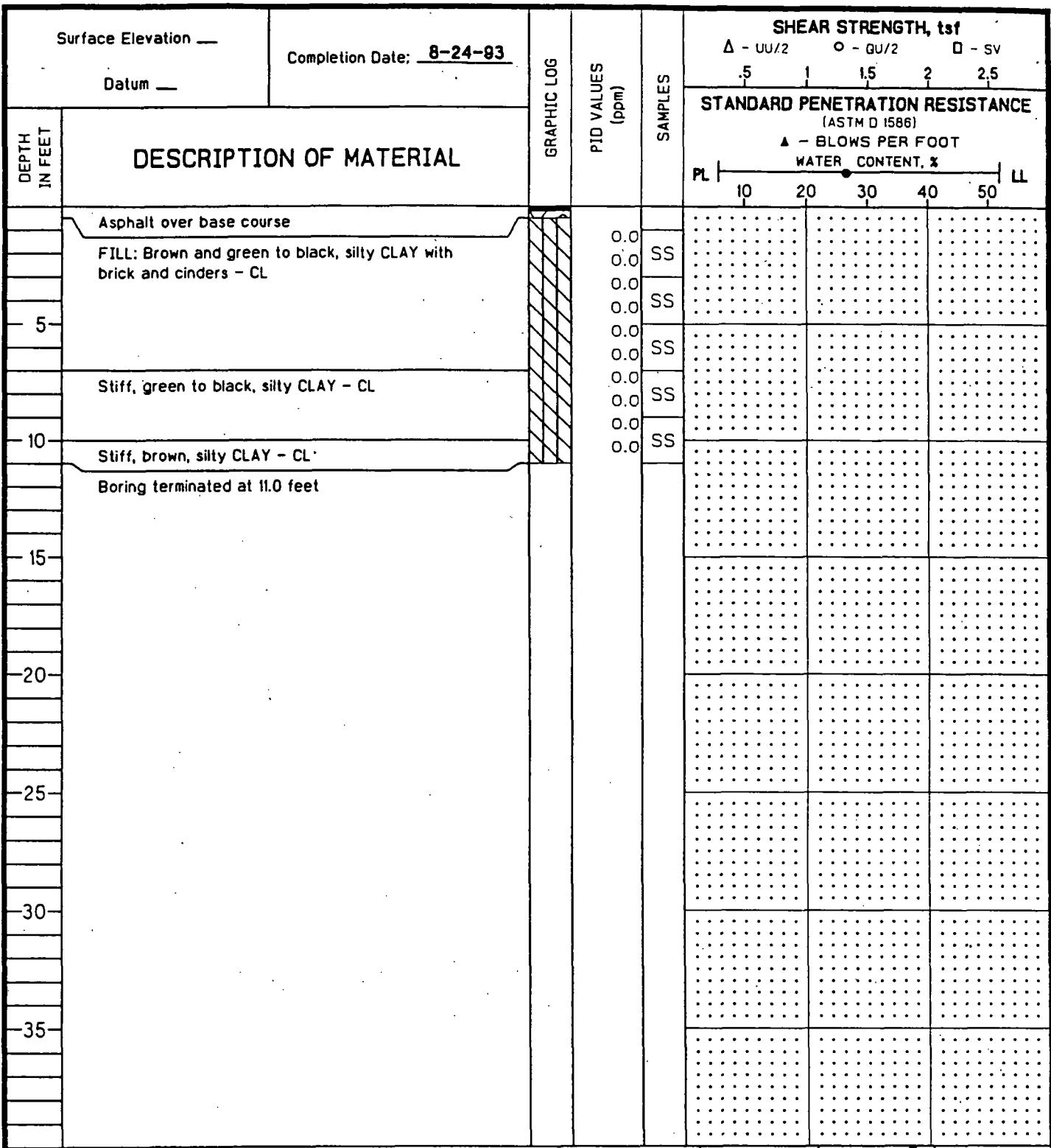
HUBERT WHEELER SCHOOL

LOG OF BORING: B-10

Project No.
2498.01.3120.02

PLATE

NOTE: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.



GROUNDWATER DATA

ENCOUNTERED AT FEET
AT AFTER HOURS
AT AFTER HOURS
X FREE WATER NOT
ENCOUNTERED DURING DRILLING

DRILLING DATA

AUGER 3 3/4" HOLLOW STEM
WASHBORING FROM FEET
PG DRILLER SLB LOGGER
CME 550 DRILL RIG

REMARKS:

SEE NOTATION SHEET FOR DESCRIPTION OF ABBREVIATIONS

Drawn by: SH Ck'd. by: SLB App'd. by: EPA
Date: 9-7-93 Date: 10/11/93 Date: 11/23/93

GEOTECHNOLOGY, INC
ENGINEERING AND ENVIRONMENTAL SERVICES

HUBERT WHEELER SCHOOL

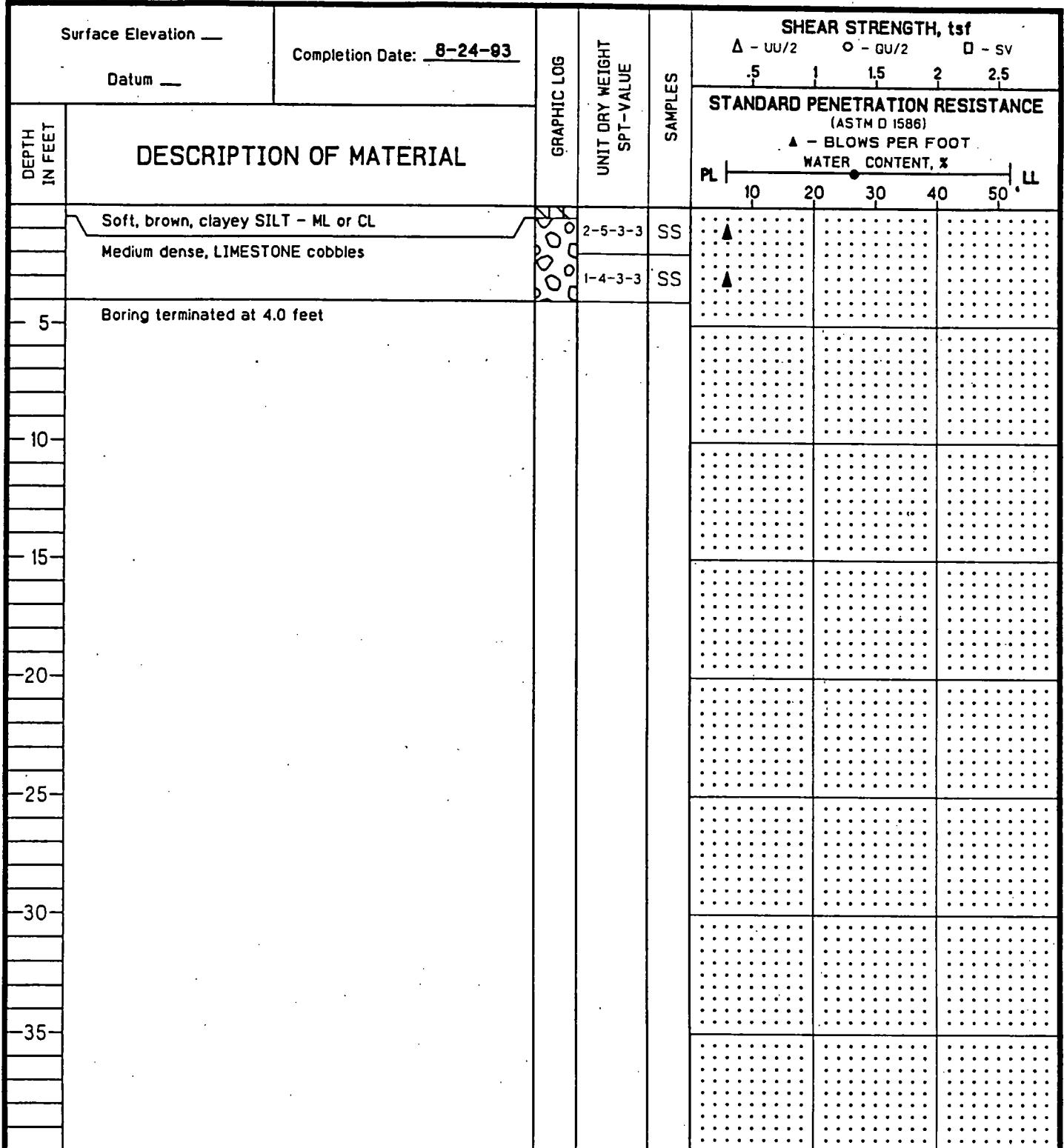
LOG OF BORING: B-9

Project No.
2498.01.3120.02

PLATE

APPENDIX C
ANALYTICAL DATA REPORTS

NOTE: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES
AND THE TRANSITION MAY BE GRADUAL. GRAPHIC LOG FOR ILLUSTRATION PURPOSES ONLY.



GROUNDWATER DATA

ENCOUNTERED AT FEET
 AT AFTER HOURS
 AT AFTER HOURS
 X FREE WATER NOT
 ENCOUNTERED DURING DRILLING

DRILLING DATA

AUGER 3 3/4" HOLLOW STEM
 WASHBORING FROM FEET
 PG DRILLER SLB LOGGER
 CME 550 DRILL RIG

REMARKS:

SEE NOTATION SHEET FOR DESCRIPTION OF ABBREVIATIONS

Drawn by: SH Chkd by: JcB App'd by: GAS
 Date: 10-4-93 Date: 10-4-93 Date: 10-3-93

GEOTECHNOLOGY, INC
ENGINEERING AND ENVIRONMENTAL SERVICES

HUBERT WHEELER SCHOOL

LOG OF BORING: B-10A

Project No.
2498.01.3120.02

PLATE

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

ANALYSIS RESULTS

SAMPLE ID: 2498-B2-8.10
LAB ID: 93081288
DATE COLLECTED: 8/23/93

<u>TEST PERFORMED</u>	<u>METHOD OF ANALYSIS</u>	<u>RESULTS</u>
METALS ANALYSIS		TOTAL
ANTIMONY	SW-846 7041	<3.00 mg/kg
ARSENIC	SW-846 7060	7.97
BERYLLIUM	SW-846 6010	0.620
CADMIUM	SW-846 6010	0.907
CHROMIUM	SW-846 6010	18.9
COPPER	SW-846 6010	29.4
LEAD	SW-846 6010	139
MERCURY	SW-846 7471	0.47
NICKEL	SW-846 6010	18.9
SELENIUM	SW-846 7740	0.391
SILVER	SW-846 6010	0.729
THALLIUM	SW-846 7841	<0.50
ZINC	SW-846 6010	113
TOTAL CYANIDE	SW-846 9010	<0.2 mg/kg
PHENOLS	SW-846 9065	<1.0 mg/kg

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

Mr. Sam Brenneke
Geotechnology
2258 Grissom Dr.
St. Louis, MO 63146

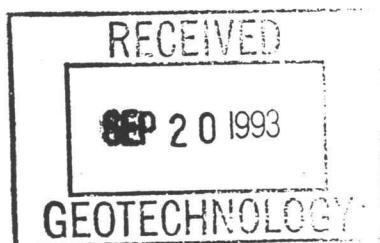
Dear Sir:

Samples labeled 2498-b1 thru 10 were submitted on 25 August, 1993 for semivolatile analysis method SW 846 8270. The method blank extracted with the samples did not meet surrogate criteria for 2-Fluorophenol and 2,4,6-Tribromophenol. According to the method the samples must be re-extracted along with a new method blank. However, because the samples were taken on 23 and 24 August, 93, extracted on 2 Sept, 1993, and analyzed on 8 Sept, 1993, they could not be re-extracted within the required holding times. The samples themselves met the method criteria for surrogates. Further, the reason for low surrogates in the method blank was found to be the sand which is used to simulate a matrix within the blank. Sand is not a requirement for the method blank and will not be used until the problem associated with the sand can be solved. The affect upon the surrogates was not present when method blanks were extracted without sand.

Since the samples did not contain Environmetric's blank sand and met the method criteria for surrogates, the data was judged to be valid and acceptable for a sight assessment.

We apologize for any inconvenience this may have caused you. If you have any questions concerning the data, feel free to contact John Walsh (GC/MS Coordinator) at 427-0550.

John Walsh
John Walsh
GC/MS



ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

ANALYSIS RESULTS

SAMPLE ID: 2498-B3-3.5
LAB ID: 93081289
DATE COLLECTED: 8/24/93

<u>TEST PERFORMED</u>	<u>METHOD OF ANALYSIS</u>	<u>RESULTS</u>
METALS ANALYSIS		<u>TOTAL</u>
ANTIMONY	SW-846 7041	<3.00 mg/kg
ARSENIC	SW-846 7060	7.65
BERYLLIUM	SW-846 6010	0.852
CADMIUM	SW-846 6010	1.34
CHROMIUM	SW-846 6010	13.7
COPPER	SW-846 6010	35.5
LEAD	SW-846 6010	303
MERCURY	SW-846 7471	0.25
NICKEL	SW-846 6010	17.9
SELENIUM	SW-846 7740	0.635
SILVER	SW-846 6010	<0.513
THALLIUM	SW-846 7841	<0.50
ZINC	SW-846 6010	293
TOTAL CYANIDE	SW-846 9010	<0.2 mg/kg
PHENOLS	SW-846 9065	<1.0 mg/kg

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

ANALYSIS RESULTS

SAMPLE ID: 2498-B1-3.7
LAB ID: 93081287
DATE COLLECTED: 8/23/93

<u>TEST PERFORMED</u>	<u>METHOD OF ANALYSIS</u>	<u>RESULTS</u>
METALS ANALYSIS		
ANTIMONY	SW-846 7041	<3.00 mg/kg
ARSENIC	SW-846 7060	4.33
BERYLLIUM	SW-846 6010	0.525
CADMIUM	SW-846 6010	0.830
CHROMIUM	SW-846 6010	14.9
COPPER	SW-846 6010	17.6
LEAD	SW-846 6010	192
MERCURY	SW-846 7471	0.14
NICKEL	SW-846 6010	15.8
SELENIUM	SW-846 7740	<0.250
SILVER	SW-846 6010	0.500
THALLIUM	SW-846 7841	<0.50
ZINC	SW-846 6010	114
TOTAL CYANIDE	SW-846 9010	<0.2 mg/kg
PHENOLS	SW-846 9065	<1.0 mg/kg

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

ANALYSIS RESULTS

SAMPLE ID: 2498-B5-1.4
LAB ID: 93081291
DATE COLLECTED: 8/24/93

<u>TEST PERFORMED</u>	<u>METHOD OF ANALYSIS</u>	<u>RESULTS</u>
METALS ANALYSIS		<u>TOTAL</u>
ANTIMONY	SW-846 7041	<3.00 mg/kg
ARSENIC	SW-846 7060	6.07
BERYLLIUM	SW-846 6010	0.335
CADMIUM	SW-846 6010	0.656
CHROMIUM	SW-846 6010	12.2
COPPER	SW-846 6010	9.68
LEAD	SW-846 6010	79.9
MERCURY	SW-846 7471	0.26
NICKEL	SW-846 6010	10.9
SELENIUM	SW-846 7740	<0.250
SILVER	SW-846 6010	<0.459
THALLIUM	SW-846 7841	<0.50
ZINC	SW-846 6010	80.8
TOTAL CYANIDE	SW-846 9010	0.20 mg/kg
PHENOLS	SW-846 9065	<1.0 mg/kg

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

ANALYSIS RESULTS

SAMPLE ID: 2498-B8-1.3
LAB ID: 93081295
DATE COLLECTED: 8/24/93

<u>TEST PERFORMED</u>	<u>METHOD OF ANALYSIS</u>	<u>RESULTS</u>
METALS ANALYSIS		
ANTIMONY	SW-846 7041	<3.00 mg/kg
ARSENIC	SW-846 7060	9.55
BERYLLIUM	SW-846 6010	0.408
CADMIUM	SW-846 6010	0.806
CHROMIUM	SW-846 6010	12.0
COPPER	SW-846 6010	13.9
LEAD	SW-846 6010	338
MERCURY	SW-846 7471	<0.10
NICKEL	SW-846 6010	11.6
SELENIUM	SW-846 7740	0.520
SILVER	SW-846 6010	<0.560
THALLIUM	SW-846 7841	<0.50
ZINC	SW-846 6010	163
TOTAL CYANIDE	SW-846 9010	<0.2 mg/kg
PHENOLS	SW-846 9065	<1.0 mg/kg

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

ANALYSIS RESULTS

SAMPLE ID: 2498-B7-6.8
LAB ID: 93081293
DATE COLLECTED: 8/24/93

<u>TEST PERFORMED</u>	<u>METHOD OF ANALYSIS</u>	<u>RESULTS</u>
METALS ANALYSIS		TOTAL
ANTIMONY	SW-846 7041	<3.00 mg/kg
ARSENIC	SW-846 7060	8.97
BERYLLIUM	SW-846 6010	0.693
CADMIUM	SW-846 6010	0.713
CHROMIUM	SW-846 6010	18.6
COPPER	SW-846 6010	15.3
LEAD	SW-846 6010	14.5
MERCURY	SW-846 7471	<0.10
NICKEL	SW-846 6010	19.8
SELENIUM	SW-846 7740	<0.250
SILVER	SW-846 6010	<0.513
THALLIUM	SW-846 7841	<0.50
ZINC	SW-846 6010	50.6
TOTAL CYANIDE	SW-846 9010	<0.2 mg/kg
PHENOLS	SW-846 9065	<1.0 mg/kg

SEPTEMBER 15, 1993

Wayne L. Cooper
WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

ANALYSIS RESULTS

SAMPLE ID: 2498-B4-6.8
LAB ID: 93081290
DATE COLLECTED: 8/24/93

<u>TEST PERFORMED</u>	<u>METHOD OF ANALYSIS</u>	<u>RESULTS</u>
METALS ANALYSIS		
		TOTAL
ANTIMONY	SW-846 7041	<3.00 mg/kg
ARSENIC	SW-846 7060	7.95
BERYLLIUM	SW-846 6010	0.646
CADMIUM	SW-846 6010	0.581
CHROMIUM	SW-846 6010	21.0
COPPER	SW-846 6010	13.3
LEAD	SW-846 6010	40.7
MERCURY	SW-846 7471	<0.10
NICKEL	SW-846 6010	16.8
SELENIUM	SW-846 7740	<0.250
SILVER	SW-846 6010	0.586
THALLIUM	SW-846 7841	<0.50
ZINC	SW-846 6010	64.6
TOTAL CYANIDE	SW-846 9010	<0.2 mg/kg
PHENOLS	SW-846 9065	<1.0 mg/kg

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63141

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAME BRENNKE

INVOICE # 23079
PO # 6575

TCLP SPIKE RECOVERY FORM

METALS

SAMPLE ID: 2498-B8-1.3
LAB ID: 93081295
DATE COLLECTED: 08/24/93

<u>ELEMENT</u>	<u>SAMPLE RESULT MG/L</u>	<u>SPIKE LEVEL MG/L</u>	<u>SPIKE RESULT MG/L</u>	<u>PERCENT RECOVERY</u>
LEAD	0.123	5.0	4.592	89

$$\text{PERCENT RECOVERY} = \frac{(\text{SPIKE RESULT} - \text{SAMPLE RESULT})}{\text{SPIKE LEVEL}} \times 100$$

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

ANALYSIS RESULTS

SAMPLE ID: 2498-B6-3.5
LAB ID: 93081292
DATE COLLECTED: 8/24/93

<u>TEST PERFORMED</u>	<u>METHOD OF ANALYSIS</u>	<u>RESULTS</u>
METALS ANALYSIS		TOTAL
ANTIMONY	SW-846 7041	<3.00 mg/kg
ARSENIC	SW-846 7060	8.81
BERYLLIUM	SW-846 6010	0.387
CADMIUM	SW-846 6010	1.22
CHROMIUM	SW-846 6010	62.2
COPPER	SW-846 6010	54.5
LEAD	SW-846 6010	308
MERCURY	SW-846 7471	0.63
NICKEL	SW-846 6010	13.8
SELENIUM	SW-846 7740	0.332
SILVER	SW-846 6010	<0.478
THALLIUM	SW-846 7841	<0.50
ZINC	SW-846 6010	232
TOTAL CYANIDE	SW-846 9010	<0.2 mg/kg
PHENOLS	SW-846 9065	1.03 mg/kg

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

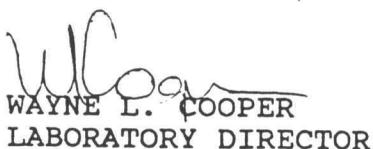
INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

ANALYSIS RESULTS

SAMPLE ID: 2498-B9-7.9
LAB ID: 93081296
DATE COLLECTED: 8/24/93

<u>TEST PERFORMED</u>	<u>METHOD OF ANALYSIS</u>	<u>RESULTS</u>
METALS ANALYSIS		
		TOTAL
ANTIMONY	SW-846 7041	<3.00 mg/kg
ARSENIC	SW-846 7060	6.93
BERYLLIUM	SW-846 6010	0.565
CADMIUM	SW-846 6010	0.865
CHROMIUM	SW-846 6010	13.2
COPPER	SW-846 6010	20.2
LEAD	SW-846 6010	115
MERCURY	SW-846 7471	0.11
NICKEL	SW-846 6010	18.3
SELENIUM	SW-846 7740	0.530
SILVER	SW-846 6010	0.720
THALLIUM	SW-846 7841	<0.50
ZINC	SW-846 6010	98.0
TOTAL CYANIDE	SW-846 9010	<0.2 mg/kg
PHENOLS	SW-846 9065	<1.0 mg/kg

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63141

ATTN: SAME BRENNKE

INVOICE # 23079
PO # 6575

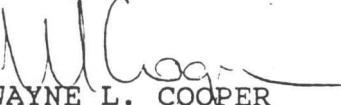
2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ANALYSIS RESULTS

SAMPLE ID: 2498-B8-1.3
LAB ID: 93081295
DATE COLLECTED: 08/24/93

<u>TEST PERFORMED</u>	<u>METHOD OF ANALYSIS</u>	<u>RESULTS</u>
TCLP EXTRACTION	SW-846 1311	
METALS ANALYSIS	SW-846 6010	EXTRACTION
LEAD		0.123 mg/l

SEPTEMBER 24, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

ANALYSIS RESULTS

DIOXIN 2,3,7,8-TCDD

<u>LAB NO.</u>	<u>IDENTIFICATION</u>	<u>DETECTION LIMIT</u>	<u>RESULTS</u>
BLANK	SOIL BLANK	0.300 NG/GM	U NG/GM
93081295	2498-B8-1.3 8/24/93	0.300 NG/GM	U NG/GM
93081296	2498-B9-7.9 8/24/93	0.300 NG/GM	U NG/GM

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

CUSTODY TRANSFER RECORD/LABORATORY WORK REQUEST

COMPANY Geotechnology

ADDRESS _____

CITY/STATE/ZIP _____

PHONE () 997-7440

CONTACT Sam Brenneke

DATE 9-20-93

DUE DATE 9-24-93

FAX () _____

COC # 10821

PROPOSAL # G4634

PROJECT # _____

PO # 6575

PAGE _____

OF _____

SAMPLE IDENTIFICATION

ITEM	FOR LAB USE ONLY	SITE CODE/ SAMPLE DESCRIPTION	DATE COLLECTED	PRESERV.	CONTAINER	TC462B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	93081295	2498-B8-1,3	8-24-93	—	1 qt glass	X															
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

ITEMS TRANSFERRED	RELINQUISHED BY	Date	Time	RECEIVED BY	Date	Time	REASON for TRANSFER	COMMENTS:
				Sam Pohl	9/20	845	Log In	
1	Cliff M. Wylie	9/20	8:50	Mary Pihen	9/20/93	8:50	To IP	
1	Mary Pihen	9/20/93	11:10	Cliff M. Wylie			Return	

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS METHOD SW-846 8240

INVOICE # 22943

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: METHOD BLANK

LAB ID: VCBLK245A

PRACTICAL QUANTITATION

<u>CAS NUMBER</u>		<u>LIMIT</u>	<u>RESULTS</u>
74-87-3	Chloromethane	10 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
74-83-9	Bromomethane	10	U
85-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	5.6B
67-64-1	Acetone	100	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	100	U
107-13-1	Acrylonitrile	100	U
75-69-04	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (Total)	5	U

U = UNDETECTED

B = PRESENT IN BLANK

J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

DATE COLLECTED : ---

DATE RECEIVED : ---

DATE ANALYZED : 9/03/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

ANALYSIS RESULTS

SAMPLE ID: 2498-B10-1.3
LAB ID: 93081294
DATE COLLECTED: 8/24/93

<u>TEST PERFORMED</u>	<u>METHOD OF ANALYSIS</u>	<u>RESULTS</u>
METALS ANALYSIS		
ANTIMONY	SW-846 7041	<3.00 mg/kg
ARSENIC	SW-846 7060	7.42
BERYLLIUM	SW-846 6010	0.514
CADMIUM	SW-846 6010	1.77
CHROMIUM	SW-846 6010	9.62
COPPER	SW-846 6010	13.3
LEAD	SW-846 6010	33.6
MERCURY	SW-846 7471	0.39
NICKEL	SW-846 6010	13.7
SELENIUM	SW-846 7740	<0.250
SILVER	SW-846 6010	0.986
THALLIUM	SW-846 7841	<0.50
ZINC	SW-846 6010	44.5
TOTAL CYANIDE	SW-846 9010	<0.2 mg/kg
PHENOLS	SW-846 9065	<1.0 mg/kg

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS METHOD SW-846 8240

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL
SAMPLE ID: 2498-B2-8.10
LAB ID: 93081288

CAS NUMBER	PRACTICAL QUANTITATION LIMIT	RESULTS	
		U µg/kg	U µg/kg
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
85-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	41
67-64-1	Acetone	100	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	100	U
107-13-1	Acrylonitrile	100	U
75-69-04	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	6.2
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (Total)	5	5

U = UNDETECTED

B = PRESENT IN BLANK

J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

DATE COLLECTED : 8/23/93

DATE RECEIVED : 8/25/93

DATE ANALYZED : 9/02/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS METHOD SW-846 8240

INVOICE # 22943

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: METHOD BLANK

LAB ID: VCBLK244A

CAS NUMBER

		PRACTICAL QUANTITATION LIMIT	RESULTS
74-87-3	Chloromethane	10 µg/kg	U µg/kg
74-83-9	Bromomethane	10	U
85-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	100	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	100	U
107-13-1	Acrylonitrile	100	U
75-69-04	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (Total)	5	U

U = UNDETECTED

B = PRESENT IN BLANK

J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

DATE COLLECTED : ---

DATE RECEIVED : ---

DATE ANALYZED : 9/02/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS METHOD SW-846 8240

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL
SAMPLE ID: 2498-B4-6.8
LAB ID: 93081290

PRACTICAL QUANTITATION

CAS NUMBER		LIMIT	RESULTS
74-87-3	Chloromethane	10 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
74-83-9	Bromomethane	10	U
85-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	76B
67-64-1	Acetone	100	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	100	U
107-13-1	Acrylonitrile	100	U
75-69-04	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	6.5
100-42-5	Styrene	5	U
1330-20-7	Xylene (Total)	5	5.8

U = UNDETECTED

B = PRESENT IN BLANK

J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

DATE COLLECTED : 8/24/93

DATE RECEIVED : 8/25/93

DATE ANALYZED : 9/03/93

SEPTEMBER 15, 1993

WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS METHOD SW-846 8240

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL
SAMPLE ID: 2498-B1-3.7
LAB ID: 93081287

CAS NUMBER	PRACTICAL QUANTITATION LIMIT	RESULTS
		µg/kg
74-87-3	Chloromethane	50
74-83-9	Bromomethane	50
85-01-4	Vinyl Chloride	50
75-00-3	Chloroethane	50
75-09-2	Methylene Chloride	25
67-64-1	Acetone	500
107-02-8	Acrolein	500
75-15-0	Carbon Disulfide	500
107-13-1	Acrylonitrile	500
75-69-04	Trichlorofluoromethane	50
75-35-4	1,1-Dichloroethene	25
75-34-3	1,1-Dichloroethane	25
540-59-0	1,2-Dichloroethene (Total)	25
67-66-3	Chloroform	25
107-06-2	1,2-Dichloroethane	25
78-93-3	2-Butanone	500
71-55-6	1,1,1-Trichloroethane	25
56-23-5	Carbon Tetrachloride	25
108-05-4	Vinyl Acetate	250
75-27-4	Bromodichloromethane	25
78-87-5	1,2-Dichloropropane	25
10061-01-5	cis-1,3-Dichloropropene	25
79-01-6	Trichloroethene	25
124-48-1	Dibromochloromethane	25
79-00-5	1,1,2-Trichloroethane	25
71-43-2	Benzene	25
10061-02-6	trans-1,3-Dichloropropene	25
75-25-2	Bromoform	25
108-10-1	4-Methyl-2-Pentanone	250
591-78-6	2-Hexanone	250
127-18-4	Tetrachloroethene	25
79-34-5	1,1,2,2-Tetrachloroethane	25
108-88-3	Toluene	25
108-90-7	Chlorobenzene	25
100-41-4	Ethylbenzene	25
100-42-5	Styrene	25
1330-20-7	Xylene (Total)	25

U = UNDETECTED

B = PRESENT IN BLANK

J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

DATE COLLECTED : 8/23/93

DATE RECEIVED : 8/25/93

DATE ANALYZED : 9/03/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS METHOD SW-846 8240

INVOICE # 22943

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2498-B6-3.5

LAB ID: 93081292

PRACTICAL QUANTITATION

CAS NUMBER		LIMIT	RESULTS
74-87-3	Chloromethane	10 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
74-83-9	Bromomethane	10	U
85-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	61B
67-64-1	Acetone	100	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	100	U
107-13-1	Acrylonitrile	100	U
75-69-04	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (Total)	5	U

U = UNDETECTED

B = PRESENT IN BLANK

J = DETECTED, BUT BELOW PRACTICAL

QUANTITATION LIMIT

DATE COLLECTED : 8/24/93

DATE RECEIVED : 8/25/93

DATE ANALYZED : 9/03/93

SEPTEMBER 15, 1993

WAYNE L. COOPER
LABORATORY DIRECTOR

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS
METHOD SW-846 8240

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL
SAMPLE ID: 2498-B3-3.5
LAB ID: 93081289

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
74-87-3	Chloromethane	10 µg/kg	11 µg/kg
74-83-9	Bromomethane	10	U
85-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	110
67-64-1	Acetone	100	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	100	U
107-13-1	Acrylonitrile	100	U
75-69-04	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	18
100-42-5	Styrene	5	U
1330-20-7	Xylene (Total)	5	11

U = UNDETECTED

B = PRESENT IN BLANK

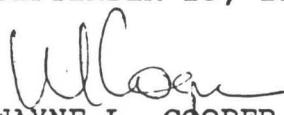
J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

DATE COLLECTED : 8/24/93

DATE RECEIVED : 8/25/93

DATE ANALYZED : 9/02/93

SEPTEMBER 15, 1993



WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS METHOD SW-846 8240

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL
SAMPLE ID: 2498-B10-1.3
LAB ID: 93081294

CAS NUMBER	COMPOUND	PRACTICAL	RESULTS
		QUANTITATION LIMIT	
74-87-3	Chloromethane	10 µg/kg	U µg/kg
74-83-9	Bromomethane	10	U
85-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	70
67-64-1	Acetone	100	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	100	U
107-13-1	Acrylonitrile	100	U
75-69-04	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (Total)	5	U

U = UNDETECTED

B = PRESENT IN BLANK

J = DETECTED, BUT BELOW PRACTICAL
QUANTITATION LIMIT

DATE COLLECTED : 8/24/93

DATE RECEIVED : 8/25/93

DATE ANALYZED : 9/02/93

SEPTEMBER 15, 1993

WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS METHOD SW-846 8240

INVOICE # 22943

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2498-B5-1.4

LAB ID: 93081291

CAS NUMBER

CAS NUMBER	COMPOUND	PRACTICAL QUANTITATION	
		LIMIT	RESULTS
74-87-3	Chloromethane	10 µg/kg	U µg/kg
74-83-9	Bromomethane	10	U
85-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	140
67-64-1	Acetone	100	120
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	100	U
107-13-1	Acrylonitrile	100	U
75-69-04	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	14
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (Total)	5	12

U = UNDETECTED

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J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

DATE COLLECTED : 8/24/93

DATE RECEIVED : 8/25/93

DATE ANALYZED : 9/02/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
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ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS METHOD SW-846 8240

INVOICE # 22943

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2498-B9-7.9

LAB ID: 93081296

PRACTICAL QUANTITATION

CAS NUMBER		LIMIT	RESULTS
74-87-3	Chloromethane	10 µg/kg	U µg/kg
74-83-9	Bromomethane	10	10
85-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	100B
67-64-1	Acetone	100	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	100	U
107-13-1	Acrylonitrile	100	U
75-69-04	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	93
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	7.9
100-42-5	Styrene	5	U
1330-20-7	Xylene (Total)	5	42

U = UNDETECTED

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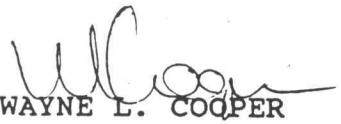
J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

DATE COLLECTED : 8/24/93

DATE RECEIVED : 8/25/93

DATE ANALYZED : 9/03/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
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ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS METHOD SW-846 8240

INVOICE # 22943

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2498-B7-6.8

LAB ID: 93081293

PRACTICAL QUANTITATION

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
74-87-3	Chloromethane	10 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
74-83-9	Bromomethane	10	U
85-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	120
67-64-1	Acetone	100	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	100	U
107-13-1	Acrylonitrile	100	U
75-69-04	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (Total)	5	U

U = UNDETECTED

B = PRESENT IN BLANK

J = DETECTED, BUT BELOW PRACTICAL
QUANTITATION LIMIT

DATE COLLECTED : 8/24/93

DATE RECEIVED : 8/25/93

DATE ANALYZED : 9/02/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE TWO
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

SAMPLE ID: METHOD BLANK
LAB ID: SASBLK3899

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
100-02-7	4-Nitrophenol	1,700 µg/kg	U µg/kg
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenol phenyl ether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1,700	U
534-52-1	4,6-Dinitro-2-methylphenol	1,700	U
86-30-6	N-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1,700	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	88BJ
206-44-0	Fluoranthene	330	U
92-87-4	Benzidine	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	76BJ
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

U = UNDETECTED

B = PRESENT IN BLANK

J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

DATE COLLECTED : ---

DATE RECEIVED : ---

DATE EXTRACTED : 9/02/93

DATE ANALYZED : 9/08/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

VOLATILE ORGANIC ANALYSIS METHOD SW-846 8240

INVOICE # 22943

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2498-B8-1.3

LAB ID: 93081295

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
74-87-3	Chloromethane	10 µg/kg	U µg/kg
74-83-9	Bromomethane	10	U
85-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	120B
67-64-1	Acetone	100	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	100	U
107-13-1	Acrylonitrile	100	U
75-69-04	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	12
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (Total)	5	7.4

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DATE COLLECTED : 8/24/93

DATE RECEIVED : 8/25/93

DATE ANALYZED : 9/03/93

SEPTEMBER 15, 1993

WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
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ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE TWO

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2498-B1-3.7

LAB ID: 93081287

CAS NUMBER		PRACTICAL QUANTITATION	
		LIMIT	RESULTS
100-02-7	4-Nitrophenol	2,100 µg/kg	U µg/kg
132-64-9	Dibenzofuran	420	610
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenol phenyl ether	420	U
86-73-7	Fluorene	420	1,300
100-01-6	4-Nitroaniline	2,100	U
534-52-1	4,6-Dinitro-2-methylphenol	2,100	U
86-30-6	N-Nitrosodiphenylamine	420	U
101-55-3	4-Bromophenyl phenyl ether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2,100	U
85-01-8	Phenanthrene	4,200	12,000
120-12-7	Anthracene	420	2,900
84-74-2	Carbazole	420	1,400
84-74-2	Di-n-butylphthalate	420	170BJ
206-44-0	Fluoranthene	4,200	13,000
92-87-4	Benzidine	420	U
129-00-0	Pyrene	4,200	8,600
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo(a)anthracene	420	5,000
218-01-9	Chrysene	420	4,200
117-81-7	bis(2-Ethylhexyl)phthalate	420	U
117-84-0	Di-n-octylphthalate	420	U
205-99-2	Benzo(b)fluoranthene	420	5,300
207-08-9	Benzo(k)fluoranthene	420	1,700
50-32-8	Benzo(a)pyrene	420	3,800
193-39-5	Indeno(1,2,3-cd)pyrene	420	1,800
53-70-3	Dibenzo(a,h)anthracene	420	460
191-24-2	Benzo(g,h,i)perylene	420	1,600

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DATE COLLECTED : 8/23/93
DATE RECEIVED : 8/25/93
DATE EXTRACTED : 9/02/93
DATE ANALYZED : 9/08 & 10/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE ONE

PO # 6575
PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: METHOD BLANK

LAB ID: SASBLK3899

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION</u>	
		<u>LIMIT</u>	<u>RESULTS</u>
62-75-9	N-Nitrosodimethylamine	330 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
108-95-2	Phenol	330	U
111-44-4	bis(2-chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	o-Cresol	330	U
39638-32-9	bis-(2-Chloro2propyl)Ether	330	U
106-44-5	m & p-Cresol	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1,700	220BJ
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1,700	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1,700	U
131-11-3	Dimethylphthalate	330	U
103-33-3	Azobenzene	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	1,700	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1,700	U

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE TWO
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B2-8.10
LAB ID: 93081288

CAS NUMBER	COMPOUND	PRACTICAL QUANTITATION	
		LIMIT	RESULTS
100-02-7	4-Nitrophenol	2,000 µg/kg	U µg/kg
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenol phenyl ether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	2,000	U
534-52-1	4,6-Dinitro-2-methylphenol	2,000	U
86-30-6	N-Nitrosodiphenylamine	400	U
101-55-3	4-Bromophenyl phenyl ether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	2,000	U
85-01-8	Phenanthrene	400	320J
120-12-7	Anthracene	400	U
84-74-2	Carbazole	400	U
84-74-2	Di-n-butylphthalate	400	150BJ
206-44-0	Fluoranthene	400	310
92-87-4	Benzidine	400	U
129-00-0	Pyrene	400	280J
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)anthracene	400	130J
218-01-9	Chrysene	400	160J.
117-81-7	bis(2-Ethylhexyl)phthalate	400	U
117-84-0	Di-n-octylphthalate	400	U
205-99-2	Benzo(b)fluoranthene	400	200J
207-08-9	Benzo(k)fluoranthene	400	74J
50-32-8	Benzo(a)pyrene	400	98J
193-39-5	Indeno(1,2,3-cd)pyrene	400	82J
53-70-3	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	77J

U = UNDETECTED

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DATE COLLECTED : 8/23/93
DATE RECEIVED : 8/25/93
DATE EXTRACTED : 9/02/93
DATE ANALYZED : 9/08/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
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ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
INVOICE # 22943 METHOD SW-846 8270
PAGE ONE

INVOICE # 22943 PAGE ONE
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2498-B1-3.7
LAB ID: 93081287

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION</u>	<u>LIMIT</u>	<u>RESULTS</u>
62-75-9	N-Nitrosodimethylamine		420 µg/kg	U µg/kg
108-95-2	Phenol		420	U
111-44-4	bis(2-chloroethyl)Ether		420	U
95-57-8	2-Chlorophenol		420	U
541-73-1	1,3-Dichlorobenzene		420	U
106-46-7	1,4-Dichlorobenzene		420	U
100-51-6	Benzyl Alcohol		420	U
95-50-1	1,2-Dichlorobenzene		420	U
95-48-7	o-Cresol		420	U
39638-32-9	bis-(2-Chloro2propyl)Ether		420	U
106-44-5	m & p-Cresol		420	U
621-64-7	N-Nitroso-Di-n-propylamine		420	U
67-72-1	Hexachloroethane		420	U
98-95-3	Nitrobenzene		420	U
78-59-1	Isophorone		420	U
88-75-5	2-Nitrophenol		420	U
105-67-9	2,4-Dimethylphenol		420	U
65-85-0	Benzoic Acid		2,100	U
111-91-1	bis(2-Chloroethoxy)methane		420	U
120-83-2	2,4-Dichlorophenol		420	U
120-82-1	1,2,4-Trichlorobenzene		420	U
91-20-3	Naphthalene		420	U
106-47-8	4-Chloroaniline		420	U
87-68-3	Hexachlorobutadiene		420	U
59-50-7	4-Chloro-3-methylphenol		420	U
91-57-6	2-Methylnaphthalene		420	55J
77-47-4	Hexachlorocyclopentadiene		420	U
88-06-2	2,4,6-Trichlorophenol		420	U
95-95-4	2,4,5-Trichlorophenol		2,100	U
91-58-7	2-Chloronaphthalene		420	U
88-74-4	2-Nitroaniline		2,100	U
131-11-3	Dimethylphthalate		420	U
103-33-3	Azobenzene		420	U
208-96-8	Acenaphthylene		420	72J
606-20-2	2,6-Dinitrotoluene		420	U
99-09-2	3-Nitroaniline		2,100	U
83-32-9	Acenaphthene		420	1,040
51-28-5	2,4-Dinitrophenol		2,100	U

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE TWO
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B3-3.5
LAB ID: 93081289

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
100-02-7	4-Nitrophenol	2,200 µg/kg	U µg/kg
132-64-9	Dibenzofuran	430	85J
121-14-2	2,4-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
7005-72-3	4-Chlorophenol phenyl ether	430	U
86-73-7	Fluorene	430	130J
100-01-6	4-Nitroaniline	2,200	U
534-52-1	4,6-Dinitro-2-methylphenol	2,200	U
86-30-6	N-Nitrosodiphenylamine	430	U
101-55-3	4-Bromophenyl phenyl ether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	2,200	U
85-01-8	Phenanthrene	430	1,800
120-12-7	Anthracene	430	350J
84-74-2	Carbazole	430	160J
84-74-2	Di-n-butylphthalate	430	58BJ
206-44-0	Fluoranthene	430	2,400
92-87-4	Benzidine	430	U
129-00-0	Pyrene	430	2,500
85-68-7	Butylbenzylphthalate	430	U
91-94-1	3,3'-Dichlorobenzidine	430	U
56-55-3	Benzo(a)anthracene	430	1,200
218-01-9	Chrysene	430	1,300
117-81-7	bis(2-Ethylhexyl)phthalate	430	U
117-84-0	Di-n-octylphthalate	430	U
205-99-2	Benzo(b)fluoranthene	430	1,900
207-08-9	Benzo(k)fluoranthene	430	520
50-32-8	Benzo(a)pyrene	430	1,070
193-39-5	Indeno(1,2,3-cd)pyrene	430	570
53-70-3	Dibenzo(a,h)anthracene	430	170J
191-24-2	Benzo(g,h,i)perylene	430	560

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DATE COLLECTED : 8/24/93
DATE RECEIVED : 8/25/93
DATE EXTRACTED : 9/02/93
DATE ANALYZED : 9/08/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

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2345 Millpark Drive
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(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE ONE
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B2-8.10
LAB ID: 93081288

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
62-75-9	N-Nitrosodimethylamine	400 µg/kg	U µg/kg
108-95-2	Phenol	400	U
111-44-4	bis(2-chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
100-51-6	Benzyl Alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	o-Cresol	400	U
39638-32-9	bis-(2-Chloro2propyl)Ether	400	U
106-44-5	m & p-Cresol	400	U
621-64-7	N-Nitroso-Di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic Acid	2,000	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	2,000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2,000	U
131-11-3	Dimethylphthalate	400	U
103-33-3	Azobenzene	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	2,000	U
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	2,000	U

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE TWO

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B4-6.8

LAB ID: 93081290

<u>CAS NUMBER</u>		PRACTICAL QUANTITATION	
		<u>LIMIT</u>	<u>RESULTS</u>
100-02-7	4-Nitrophenol	2,000 µg/kg	U µg/kg
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenol phenyl ether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2,000	U
534-52-1	4,6-Dinitro-2-methylphenol	2,000	U
86-30-6	N-Nitrosodiphenylamine	410	U
101-55-3	4-Bromophenyl phenyl ether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2,000	U
85-01-8	Phenanthrene	410	120J
120-12-7	Anthracene	410	U
84-74-2	Carbazole	410	U
84-74-2	Di-n-butylphthalate	410	81BJ
206-44-0	Fluoranthene	410	120J
92-87-4	Benzidine	410	U
129-00-0	Pyrene	410	106J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	410	56J
117-81-7	bis(2-Ethylhexyl)phthalate	410	U
117-84-0	Di-n-octylphthalate	410	U
205-99-2	Benzo(b)fluoranthene	410	89J
207-08-9	Benzo(k)fluoranthene	410	U
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
53-70-3	Dibenzo(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	410	U

U = UNDETECTED

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DATE COLLECTED : 8/24/93
DATE RECEIVED : 8/25/93
DATE EXTRACTED : 9/02/93
DATE ANALYZED : 9/08/93

SEPTEMBER 15, 1993

WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE ONE

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B3-3.5

LAB ID: 93081289

<u>CAS NUMBER</u>		PRACTICAL QUANTITATION	
		<u>LIMIT</u>	<u>RESULTS</u>
62-75-9	N-Nitrosodimethylamine	430 µg/kg	U µg/kg
108-95-2	Phenol	430	U
111-44-4	bis(2-chloroethyl)Ether	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
100-51-6	Benzyl Alcohol	430	U
95-50-1	1,2-Dichlorobenzene	430	U
95-48-7	o-Cresol	430	U
39638-32-9	bis-(2-Chloro2propyl)Ether	430	U
106-44-5	m & p-Cresol	430	U
621-64-7	N-Nitroso-Di-n-propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
65-85-0	Benzoic Acid	2,200	U
111-91-1	bis(2-Chloroethoxy)methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	2,200	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	2,200	U
131-11-3	Dimethylphthalate	430	U
103-33-3	Azobenzene	430	U
208-96-8	Acenaphthylene	430	80J
606-20-2	2,6-Dinitrotoluene	430	U
99-09-2	3-Nitroaniline	2,200	U
83-32-9	Acenaphthene	430	150J
51-28-5	2,4-Dinitrophenol	2,200	U

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE TWO

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B5-1.4

LAB ID: 93081291

CAS NUMBER	COMPOUND	PRACTICAL QUANTITATION		RESULTS
		LIMIT	U	
100-02-7	4-Nitrophenol	2,000	µg/kg	U µg/kg
132-64-9	Dibenzofuran	390		440
121-14-2	2,4-Dinitrotoluene	390		U
84-66-2	Diethylphthalate	390		U
7005-72-3	4-Chlorophenol phenyl ether	390		U
86-73-7	Fluorene	390		570
100-01-6	4-Nitroaniline	2,000		U
534-52-1	4,6-Dinitro-2-methylphenol	2,000		U
86-30-6	N-Nitrosodiphenylamine	390		U
101-55-3	4-Bromophenyl phenyl ether	390		U
118-74-1	Hexachlorobenzene	390		U
87-86-5	Pentachlorophenol	2,000		U
85-01-8	Phenanthrene	390		6,100
120-12-7	Anthracene	390		1,200
84-74-2	Carbazole	390		820
84-74-2	Di-n-butylphthalate	390		U
206-44-0	Fluoranthene	3,900		8,400
92-87-4	Benzidine	390		U
129-00-0	Pyrene	3,900		6,400
85-68-7	Butylbenzylphthalate	390		U
91-94-1	3,3'-Dichlorobenzidine	390		U
56-55-3	Benzo(a)anthracene	390		3,400
218-01-9	Chrysene	390		3,300
117-81-7	bis(2-Ethylhexyl)phthalate	390		50BJ
117-84-0	Di-n-octylphthalate	390		U
205-99-2	Benzo(b)fluoranthene	390		5,200
207-08-9	Benzo(k)fluoranthene	390		450
50-32-8	Benzo(a)pyrene	390		3,000
193-39-5	Indeno(1,2,3-cd)pyrene	390		1,400
53-70-3	Dibenzo(a,h)anthracene	390		420
191-24-2	Benzo(g,h,i)perylene	390		1,400

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DATE COLLECTED : 8/24/93

DATE RECEIVED : 8/25/93

DATE EXTRACTED : 9/02/93

DATE ANALYZED : 9/08 & 10/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

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2258 GRISSOM DRIVE
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Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE ONE

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B4-6.8

LAB ID: 93081290

<u>CAS NUMBER</u>	<u>PRACTICAL QUANTITATION</u>	<u>LIMIT</u>	<u>RESULTS</u>
62-75-9	N-Nitrosodimethylamine	410 µg/kg	U µg/kg
108-95-2	Phenol	410	U
111-44-4	bis(2-chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
100-51-6	Benzyl Alcohol	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	o-Cresol	410	U
39638-32-9	bis-(2-Chloro2propyl)Ether	410	U
106-44-5	m & p-Cresol	410	U
621-64-7	N-Nitroso-Di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
65-85-0	Benzoic Acid	2,000	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	2,000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2,000	U
131-11-3	Dimethylphthalate	410	U
103-33-3	Azobenzene	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U
99-09-2	3-Nitroaniline	2,000	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2,000	U

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
INVOICE # 22943 METHOD SW-846 8270
PO # 6575 PAGE TWO

PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B6-3.5
LAB ID: 93081292

CAS NUMBER		PRACTICAL QUANTITATION	
		LIMIT	RESULTS
100-02-7	4-Nitrophenol	200,000 µg/kg	U µg/kg
132-64-9	Dibenzofuran	39,000	U
121-14-2	2,4-Dinitrotoluene	39,000	U
84-66-2	Diethylphthalate	39,000	U
7005-72-3	4-Chlorophenol phenyl ether	39,000	U
86-73-7	Fluorene	39,000	U
100-01-6	4-Nitroaniline	200,000	U
534-52-1	4,6-Dinitro-2-methylphenol	200,000	U
86-30-6	N-Nitrosodiphenylamine	39,000	U
101-55-3	4-Bromophenyl phenyl ether	39,000	U
118-74-1	Hexachlorobenzene	39,000	U
87-86-5	Pentachlorophenol	200,000	U
85-01-8	Phenanthrene	39,000	33,000J
120-12-7	Anthracene	39,000	7,200J
84-74-2	Carbazole	39,000	U
84-74-2	Di-n-butylphthalate	39,000	U
206-44-0	Fluoranthene	39,000	36,000J
92-87-4	Benzidine	39,000	U
129-00-0	Pyrene	39,000	35,000J
85-68-7	Butylbenzylphthalate	39,000	U
91-94-1	3,3'-Dichlorobenzidine	39,000	U
56-55-3	Benzo(a)anthracene	39,000	14,000J
218-01-9	Chrysene	39,000	15,000J
117-81-7	bis(2-Ethylhexyl)phthalate	39,000	U
117-84-0	Di-n-octylphthalate	39,000	U
205-99-2	Benzo(b)fluoranthene	39,000	16,000J
207-08-9	Benzo(k)fluoranthene	39,000	7,000J
50-32-8	Benzo(a)pyrene	39,000	13,000J
193-39-5	Indeno(1,2,3-cd)pyrene	39,000	5,500J
53-70-3	Dibenzo(a,h)anthracene	39,000	U
191-24-2	Benzo(g,h,i)perylene	39,000	5,100J

U = UNDETECTED

B = PRESENT IN BLANK

J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

DATE COLLECTED : 8/24/93
DATE RECEIVED : 8/25/93
DATE EXTRACTED : 9/02/93
DATE ANALYZED : 9/08/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE ONE

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B5-1.4

LAB ID: 93081291

<u>CAS NUMBER</u>		PRACTICAL QUANTITATION	<u>RESULTS</u>
		<u>LIMIT</u>	
62-75-9	N-Nitrosodimethylamine	390 $\mu\text{g}/\text{kg}$	$\text{U } \mu\text{g}/\text{kg}$
108-95-2	Phenol	390	U
111-44-4	bis(2-chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl Alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	o-Cresol	390	U
39638-32-9	bis-(2-Chloro2propyl)Ether	390	U
106-44-5	m & p-Cresol	390	U
621-64-7	N-Nitroso-Di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	2,000	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	260J
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	160J
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	2,000	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	2,000	U
131-11-3	Dimethylphthalate	390	U
103-33-3	Azobenzene	390	U
208-96-8	Acenaphthylene	390	71J
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	2,000	U
83-32-9	Acenaphthene	390	690
51-28-5	2,4-Dinitrophenol	2,000	U

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE TWO
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B7-6.8
LAB ID: 93081293

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
100-02-7	4-Nitrophenol	2,100 µg/kg	U µg/kg
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenol phenyl ether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2,100	U
534-52-1	4,6-Dinitro-2-methylphenol	2,100	U
86-30-6	N-Nitrosodiphenylamine	420	U
101-55-3	4-Bromophenyl phenyl ether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2,100	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Carbazole	420	U
84-74-2	Di-n-butylphthalate	420	U
206-44-0	Fluoranthene	420	U
92-87-4	Benzidine	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo(a)anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)phthalate	420	U
117-84-0	Di-n-octylphthalate	420	U
205-99-2	Benzo(b)fluoranthene	420	U
207-08-9	Benzo(k)fluoranthene	420	U
50-32-8	Benzo(a)pyrene	420	U
193-39-5	Indeno(1,2,3-cd)pyrene	420	U
53-70-3	Dibenzo(a,h)anthracene	420	U
191-24-2	Benzo(g,h,i)perylene	420	U

U = UNDETECTED

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J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

DATE COLLECTED : 8/24/93
DATE RECEIVED : 8/25/93
DATE EXTRACTED : 9/02/93
DATE ANALYZED : 9/08/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE ONE

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B6-3.5

LAB ID: 93081292

<u>CAS NUMBER</u>		PRACTICAL QUANTITATION	<u>LIMIT</u>	<u>RESULTS</u>
62-75-9	N-Nitrosodimethylamine		39,000 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
108-95-2	Phenol		39,000	U
111-44-4	bis(2-chloroethyl)Ether		39,000	U
95-57-8	2-Chlorophenol		39,000	U
541-73-1	1,3-Dichlorobenzene		39,000	U
106-46-7	1,4-Dichlorobenzene		39,000	U
100-51-6	Benzyl Alcohol		39,000	U
95-50-1	1,2-Dichlorobenzene		39,000	U
95-48-7	o-Cresol		39,000	U
39638-32-9	bis-(2-Chloro2propyl)Ether		39,000	U
106-44-5	m & p-Cresol		39,000	U
621-64-7	N-Nitroso-Di-n-propylamine		39,000	U
67-72-1	Hexachloroethane		39,000	U
98-95-3	Nitrobenzene		39,000	U
78-59-1	Isophorone		39,000	U
88-75-5	2-Nitrophenol		39,000	U
105-67-9	2,4-Dimethylphenol		39,000	U
65-85-0	Benzoic Acid		200,000	U
111-91-1	bis(2-Chloroethoxy)methane		39,000	U
120-83-2	2,4-Dichlorophenol		39,000	U
120-82-1	1,2,4-Trichlorobenzene		39,000	U
91-20-3	Naphthalene		39,000	U
106-47-8	4-Chloroaniline		39,000	U
87-68-3	Hexachlorobutadiene		39,000	U
59-50-7	4-Chloro-3-methylphenol		39,000	U
91-57-6	2-Methylnaphthalene		39,000	U
77-47-4	Hexachlorocyclopentadiene		39,000	U
88-06-2	2,4,6-Trichlorophenol		39,000	U
95-95-4	2,4,5-Trichlorophenol		200,000	U
91-58-7	2-Chloronaphthalene		39,000	U
88-74-4	2-Nitroaniline		200,000	U
131-11-3	Dimethylphthalate		39,000	U
103-33-3	Azobenzene		39,000	U
208-96-8	Acenaphthylene		39,000	U
606-20-2	2,6-Dinitrotoluene		39,000	U
99-09-2	3-Nitroaniline		200,000	U
83-32-9	Acenaphthene		39,000	U
51-28-5	2,4-Dinitrophenol		200,000	U

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE TWO
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B8-1.3
LAB ID: 93081295

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
100-02-7	4-Nitrophenol	2,000 µg/kg	U µg/kg
132-64-9	Dibenzofuran	400	1,200
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenol phenyl ether	400	U
86-73-7	Fluorene	400	2,300
100-01-6	4-Nitroaniline	2,000	U
534-52-1	4,6-Dinitro-2-methylphenol	2,000	U
86-30-6	N-Nitrosodiphenylamine	400	U
101-55-3	4-Bromophenyl phenyl ether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	2,000	U
85-01-8	Phenanthrene	4,000	23,000
120-12-7	Anthracene	4,000	6,500
84-74-2	Carbazole	400	3,000
84-74-2	Di-n-butylphthalate	400	68BJ
206-44-0	Fluoranthene	4,000	28,000
92-87-4	Benzidine	400	U
129-00-0	Pyrene	4,000	20,000
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)anthracene	4,000	12,000
218-01-9	Chrysene	4,000	12,000
117-81-7	bis(2-Ethylhexyl)phthalate	400	80BJ
117-84-0	Di-n-octylphthalate	400	U
205-99-2	Benzo(b)fluoranthene	4,000	14,000
207-08-9	Benzo(k)fluoranthene	4,000	4,600
50-32-8	Benzo(a)pyrene	4,000	9,800
193-39-5	Indeno(1,2,3-cd)pyrene	400	4,700
53-70-3	Dibenzo(a,h)anthracene	400	1,400
191-24-2	Benzo(g,h,i)perylene	400	4,300

U = UNDETECTED

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SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

DATE COLLECTED : 8/24/93
DATE RECEIVED : 8/25/93
DATE EXTRACTED : 9/02/93
DATE ANALYZED : 9/09 & 10/93

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE ONE

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B7-6.8

LAB ID: 93081293

<u>CAS NUMBER</u>		PRACTICAL QUANTITATION	<u>LIMIT</u>	<u>RESULTS</u>
62-75-9	N-Nitrosodimethylamine		420 µg/kg	U µg/kg
108-95-2	Phenol		420	U
111-44-4	bis(2-chloroethyl)Ether		420	U
95-57-8	2-Chlorophenol		420	U
541-73-1	1,3-Dichlorobenzene		420	U
106-46-7	1,4-Dichlorobenzene		420	U
100-51-6	Benzyl Alcohol		420	U
95-50-1	1,2-Dichlorobenzene		420	U
95-48-7	o-Cresol		420	U
39638-32-9	bis-(2-Chloro2propyl)Ether		420	U
106-44-5	m & p-Cresol		420	U
621-64-7	N-Nitroso-Di-n-propylamine		420	U
67-72-1	Hexachloroethane		420	U
98-95-3	Nitrobenzene		420	U
78-59-1	Isophorone		420	U
88-75-5	2-Nitrophenol		420	U
105-67-9	2,4-Dimethylphenol		420	U
65-85-0	Benzoic Acid		2,100	U
111-91-1	bis(2-Chloroethoxy)methane		420	U
120-83-2	2,4-Dichlorophenol		420	U
120-82-1	1,2,4-Trichlorobenzene		420	U
91-20-3	Naphthalene		420	U
106-47-8	4-Chloroaniline		420	U
87-68-3	Hexachlorobutadiene		420	U
59-50-7	4-Chloro-3-methylphenol		420	U
91-57-6	2-Methylnaphthalene		420	U
77-47-4	Hexachlorocyclopentadiene		420	U
88-06-2	2,4,6-Trichlorophenol		420	U
95-95-4	2,4,5-Trichlorophenol		2,100	U
91-58-7	2-Chloronaphthalene		420	U
88-74-4	2-Nitroaniline		2,100	U
131-11-3	Dimethylphthalate		420	U
103-33-3	Azobenzene		420	U
208-96-8	Acenaphthylene		420	U
606-20-2	2,6-Dinitrotoluene		420	U
99-09-2	3-Nitroaniline		2,100	U
83-32-9	Acenaphthene		420	U
51-28-5	2,4-Dinitrophenol		2,100	U

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE ONE

PO # 6575

PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B9-7.9

LAB ID: 93081296

<u>CAS NUMBER</u>		PRACTICAL QUANTITATION	
		<u>LIMIT</u>	<u>RESULTS</u>
62-75-9	N-Nitrosodimethylamine	6,100 µg/kg	U µg/kg
108-95-2	Phenol	6,100	U
111-44-4	bis(2-chloroethyl)Ether	6,100	U
95-57-8	2-Chlorophenol	6,100	U
541-73-1	1,3-Dichlorobenzene	6,100	U
106-46-7	1,4-Dichlorobenzene	6,100	U
100-51-6	Benzyl Alcohol	6,100	U
95-50-1	1,2-Dichlorobenzene	6,100	U
95-48-7	o-Cresol	6,100	U
39638-32-9	bis-(2-Chloro2propyl)Ether	6,100	U
106-44-5	m & p-Cresol	6,100	U
621-64-7	N-Nitroso-Di-n-propylamine	6,100	U
67-72-1	Hexachloroethane	6,100	U
98-95-3	Nitrobenzene	6,100	U
78-59-1	Isophorone	6,100	U
88-75-5	2-Nitrophenol	6,100	U
105-67-9	2,4-Dimethylphenol	6,100	U
65-85-0	Benzoic Acid	31,000	U
111-91-1	bis(2-Chloroethoxy)methane	6,100	U
120-83-2	2,4-Dichlorophenol	6,100	U
120-82-1	1,2,4-Trichlorobenzene	6,100	U
91-20-3	Naphthalene	6,100	U
106-47-8	4-Chloroaniline	6,100	U
87-68-3	Hexachlorobutadiene	6,100	U
59-50-7	4-Chloro-3-methylphenol	6,100	U
91-57-6	2-Methylnaphthalene	6,100	U
77-47-4	Hexachlorocyclopentadiene	6,100	U
88-06-2	2,4,6-Trichlorophenol	6,100	U
95-95-4	2,4,5-Trichlorophenol	31,000	U
91-58-7	2-Chloronaphthalene	6,100	U
88-74-4	2-Nitroaniline	31,000	U
131-11-3	Dimethylphthalate	6,100	U
103-33-3	Azobenzene	6,100	U
208-96-8	Acenaphthylene	6,100	U
606-20-2	2,6-Dinitrotoluene	6,100	U
99-09-2	3-Nitroaniline	31,000	U
83-32-9	Acenaphthene	6,100	U
51-28-5	2,4-Dinitrophenol	31,000	U

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

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Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE ONE

PO # 6575
PROJECT # 2498.01.3120.01

HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B8-1.3

LAB ID: 93081295

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION</u>	
		<u>LIMIT</u>	<u>RESULTS</u>
62-75-9	N-Nitrosodimethylamine	400	μg/kg
108-95-2	Phenol	400	U
111-44-4	bis(2-chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
100-51-6	Benzyl Alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	o-Cresol	400	U
39638-32-9	bis-(2-Chloro2propyl)Ether	400	U
106-44-5	m & p-Cresol	400	U
621-64-7	N-Nitroso-Di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic Acid	2,000	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	160J
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	150J
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	2,000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2,000	U
131-11-3	Dimethylphthalate	400	U
103-33-3	Azobenzene	400	U
208-96-8	Acenaphthylene	400	110J
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	2,000	U
83-32-9	Acenaphthene	400	2,100
51-28-5	2,4-Dinitrophenol	2,000	U

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE ONE
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B10-1.3
LAB ID: 93081294

<u>CAS NUMBER</u>		PRACTICAL QUANTITATION	
		<u>LIMIT</u>	<u>RESULTS</u>
62-75-9	N-Nitrosodimethylamine	12,000 µg/kg	U µg/kg
108-95-2	Phenol	12,000	U
111-44-4	bis(2-chloroethyl)Ether	12,000	U
95-57-8	2-Chlorophenol	12,000	U
541-73-1	1,3-Dichlorobenzene	12,000	U
106-46-7	1,4-Dichlorobenzene	12,000	U
100-51-6	Benzyl Alcohol	12,000	U
95-50-1	1,2-Dichlorobenzene	12,000	U
95-48-7	o-Cresol	12,000	U
39638-32-9	bis-(2-Chloro2propyl)Ether	12,000	U
106-44-5	m & p-Cresol	12,000	U
621-64-7	N-Nitroso-Di-n-propylamine	12,000	U
67-72-1	Hexachloroethane	12,000	U
98-95-3	Nitrobenzene	12,000	U
78-59-1	Isophorone	12,000	U
88-75-5	2-Nitrophenol	12,000	U
105-67-9	2,4-Dimethylphenol	12,000	U
65-85-0	Benzoic Acid	60,000	U
111-91-1	bis(2-Chloroethoxy)methane	12,000	U
120-83-2	2,4-Dichlorophenol	12,000	U
120-82-1	1,2,4-Trichlorobenzene	12,000	U
91-20-3	Naphthalene	12,000	3,900J
106-47-8	4-Chloroaniline	12,000	U
87-68-3	Hexachlorobutadiene	12,000	U
59-50-7	4-Chloro-3-methylphenol	12,000	U
91-57-6	2-Methylnaphthalene	12,000	2,400J
77-47-4	Hexachlorocyclopentadiene	12,000	U
88-06-2	2,4,6-Trichlorophenol	12,000	U
95-95-4	2,4,5-Trichlorophenol	60,000	U
91-58-7	2-Chloronaphthalene	12,000	U
88-74-4	2-Nitroaniline	60,000	U
131-11-3	Dimethylphthalate	12,000	U
103-33-3	Azobenzene	12,000	U
208-96-8	Acenaphthylene	12,000	1,400J
606-20-2	2,6-Dinitrotoluene	12,000	U
99-09-2	3-Nitroaniline	60,000	U
83-32-9	Acenaphthene	12,000	8,200J
51-28-5	2,4-Dinitrophenol	60,000	U

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
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ATTN: SAM BRENNKE SEMIVOLATILE ORGANIC COMPOUNDS
METHOD SW-846 8270

INVOICE # 22943 PAGE TWO
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B9-7.9
LAB ID: 93081296

<u>CAS NUMBER</u>		<u>PRACTICAL QUANTITATION</u>	
		<u>LIMIT</u>	<u>RESULTS</u>
100-02-7	4-Nitrophenol	31,000 µg/kg	U µg/kg
132-64-9	Dibenzofuran	6,100	U
121-14-2	2,4-Dinitrotoluene	6,100	U
84-66-2	Diethylphthalate	6,100	U
7005-72-3	4-Chlorophenol phenyl ether	6,100	U
86-73-7	Fluorene	6,100	U
100-01-6	4-Nitroaniline	31,000	U
534-52-1	4,6-Dinitro-2-methylphenol	31,000	U
86-30-6	N-Nitrosodiphenylamine	6,100	U
101-55-3	4-Bromophenyl phenyl ether	6,100	U
118-74-1	Hexachlorobenzene	6,100	U
87-86-5	Pentachlorophenol	31,000	U
85-01-8	Phenanthrene	6,100	U
120-12-7	Anthracene	6,100	U
84-74-2	Carbazole	6,100	U
84-74-2	Di-n-butylphthalate	6,100	U
206-44-0	Fluoranthene	6,100	U
92-87-4	Benzidine	6,100	U
129-00-0	Pyrene	6,100	U
85-68-7	Butylbenzylphthalate	6,100	U
91-94-1	3,3'-Dichlorobenzidine	6,100	U
56-55-3	Benzo(a)anthracene	6,100	U
218-01-9	Chrysene	6,100	U
117-81-7	bis(2-Ethylhexyl)phthalate	6,100	U
117-84-0	Di-n-octylphthalate	6,100	U
205-99-2	Benzo(b)fluoranthene	6,100	U
207-08-9	Benzo(k)fluoranthene	6,100	U
50-32-8	Benzo(a)pyrene	6,100	U
193-39-5	Indeno(1,2,3-cd)pyrene	6,100	U
53-70-3	Dibenzo(a,h)anthracene	6,100	U
191-24-2	Benzo(g,h,i)perylene	6,100	U

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DATE COLLECTED : 8/24/93
DATE RECEIVED : 8/25/93
DATE EXTRACTED : 9/02/93
DATE ANALYZED : 9/09/93

SEPTEMBER 15, 1993


WAYNE L. COOPER
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ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

PESTICIDES & PCB ANALYSIS

METHOD SW-846 8080

SAMPLE ID: METHOD BLANK
LAB ID: OP3901

<u>CAS#</u>	<u>PARAMETER</u>	<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
319-84-6	α -BHC	1.33 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
319-85-7	β -BHC	2.00	U
319-86-8	δ -BHC	3.00	U
58-89-9	τ -BHC (Lindane)	1.33	U
76-44-8	Heptachlor	1.00	U
309-00-2	Aldrin	1.33	U
1024-57-3	Heptachlor epoxide	1.67	U
959-98-8	Endosulfan I	4.67	U
60-57-1	Dieldrin	1.33	U
72-55-9	4,4'-DDE	1.33	U
72-20-8	Endrin	2.00	U
33213-65-9	Endosulfan II	1.33	U
72-54-8	4,4'-DDD	3.67	U
1031-07-8	Endosulfan Sulfate	22.00	U
50-29-3	4,4'-DDT	4.00	U
72-43-5	Methoxychlor	58.67	U
7421-93-4	Endrin aldehyde	7.67	U
12789-03-6	Chlordane	33.33	U
8001-35-2	Toxaphene	166.67	U
12674-11-2	PCB-1016	40.00	U
1104-28-2	PCB-1221	80.00	U
11141-16-5	PCB-1232	40.00	U
53469-21-9	PCB-1242	40.00	U
12672-29-6	PCB-1248	40.00	U
11097-69-1	PCB-1254	40.00	U
11096-82-5	PCB 1260	40.00	U

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SEPTEMBER 15, 1993

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DATE RECEIVED : ---

DATE ANALYZED : 9/08/93


WAYNE L. COOPER
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METHOD SW-846 8270

INVOICE # 22943 PAGE TWO
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

SAMPLE ID: 2489-B10-1.3

LAB ID: 93081294

<u>CAS NUMBER</u>		PRACTICAL QUANTITATION	<u>LIMIT</u>	<u>RESULTS</u>
100-02-7	4-Nitrophenol		60,000 µg/kg	U µg/kg
132-64-9	Dibenzofuran		12,000	4,500J
121-14-2	2,4-Dinitrotoluene		12,000	U
84-66-2	Diethylphthalate		12,000	U
7005-72-3	4-Chlorophenol phenyl ether		12,000	U
86-73-7	Fluorene		12,000	6,700J
100-01-6	4-Nitroaniline		60,000	U
534-52-1	4,6-Dinitro-2-methylphenol		60,000	U
86-30-6	N-Nitrosodiphenylamine		12,000	U
101-55-3	4-Bromophenyl phenyl ether		12,000	U
118-74-1	Hexachlorobenzene		12,000	U
87-86-5	Pentachlorophenol		60,000	U
85-01-8	Phenanthrene		12,000	83,000
120-12-7	Anthracene		12,000	16,000
84-74-2	Carbazole		12,000	12,000J
84-74-2	Di-n-butylphthalate		12,000	U
206-44-0	Fluoranthene		12,000	104,000
92-87-4	Benzidine		12,000	U
129-00-0	Pyrene		12,000	93,000
85-68-7	Butylbenzylphthalate		12,000	U
91-94-1	3,3'-Dichlorobenzidine		12,000	U
56-55-3	Benzo(a)anthracene		12,000	45,000
218-01-9	Chrysene		12,000	54,000
117-81-7	bis(2-Ethylhexyl)phthalate		12,000	U
117-84-0	Di-n-octylphthalate		12,000	U
205-99-2	Benzo(b)fluoranthene		12,000	62,000
207-08-9	Benzo(k)fluoranthene		12,000	29,000
50-32-8	Benzo(a)pyrene		12,000	41,000
193-39-5	Indeno(1,2,3-cd)pyrene		12,000	19,000
53-70-3	Dibenzo(a,h)anthracene		12,000	6,000J
191-24-2	Benzo(g,h,i)perylene		12,000	18,000

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INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

PESTICIDES & PCB ANALYSIS

METHOD SW-846 8080

SAMPLE ID: 2498-B2-8.10
LAB ID: 93081288

<u>CAS#</u>	<u>PARAMETER</u>	<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
319-84-6	α -BHC	3.13 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
319-85-7	β -BHC	4.69	U
319-86-8	δ -BHC	7.04	U
58-89-9	τ -BHC (Lindane)	3.13	U
76-44-8	Heptachlor	2.35	U
309-00-2	Aldrin	3.13	U
1024-57-3	Heptachlor epoxide	3.91	U
959-98-8	Endosulfan I	10.95	U
60-57-1	Dieldrin	3.13	U
72-55-9	4,4'-DDE	3.13	U
72-20-8	Endrin	4.69	U
33213-65-9	Endosulfan II	3.13	U
72-54-8	4,4'-DDD	8.60	U
1031-07-8	Endosulfan Sulfate	51.61	U
50-29-3	4,4'-DDT	9.38	U
72-43-5	Methoxychlor	137.63	U
7421-93-4	Endrin aldehyde	17.99	U
12789-03-6	Chlordane	78.20	U
8001-35-2	Toxaphene	391.00	U
12674-11-2	PCB-1016	93.84	U
1104-28-2	PCB-1221	187.68	U
11141-16-5	PCB-1232	93.84	U
53469-21-9	PCB-1242	93.84	U
12672-29-6	PCB-1248	93.84	U
11097-69-1	PCB-1254	93.84	U
11096-82-5	PCB 1260	93.84	U

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HUBERT WHEELER STATE SCHOOL

PESTICIDES & PCB ANALYSIS

METHOD SW-846 8080

SAMPLE ID: 2498-B1-3.7
LAB ID: 93081287

<u>CAS#</u>	<u>PARAMETER</u>	<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
319-84-6	α -BHC	3.20 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
319-85-7	β -BHC	4.80	U
319-86-8	δ -BHC	7.19	U
58-89-9	τ -BHC (Lindane)	3.20	U
76-44-8	Heptachlor	2.40	U
309-00-2	Aldrin	3.20	U
1024-57-3	Heptachlor epoxide	4.00	U
959-98-8	Endosulfan I	11.19	U
60-57-1	Dieldrin	3.20	U
72-55-9	4,4'-DDE	3.20	U
72-20-8	Endrin	4.80	U
33213-65-9	Endosulfan II	3.20	U
72-54-8	4,4'-DDD	8.79	U
1031-07-8	Endosulfan Sulfate	52.76	U
50-29-3	4,4'-DDT	9.59	U
72-43-5	Methoxychlor	140.68	U
7421-93-4	Endrin aldehyde	18.38	U
12789-03-6	Chlordane	79.93	U
8001-35-2	Toxaphene	399.67	U
12674-11-2	PCB-1016	95.92	U
1104-28-2	PCB-1221	191.84	U
11141-16-5	PCB-1232	95.92	U
53469-21-9	PCB-1242	95.92	U
12672-29-6	PCB-1248	95.92	U
11097-69-1	PCB-1254	95.92	U
11096-82-5	PCB 1260	95.92	U

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SEPTEMBER 15, 1993


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HUBERT WHEELER STATE SCHOOL

PESTICIDES & PCB ANALYSIS

METHOD SW-846 8080

SAMPLE ID: 2498-B4-6.8
LAB ID: 93081290

<u>CAS#</u>	<u>PARAMETER</u>	<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
319-84-6	α -BHC	1.58 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
319-85-7	β -BHC	2.38	U
319-86-8	δ -BHC	3.56	U
58-89-9	τ -BHC (Lindane)	1.58	U
76-44-8	Heptachlor	1.19	U
309-00-2	Aldrin	1.58	U
1024-57-3	Heptachlor epoxide	1.98	U
959-98-8	Endosulfan I	5.54	U
60-57-1	Dieldrin	1.58	U
72-55-9	4,4'-DDE	1.58	U
72-20-8	Endrin	2.38	U
33213-65-9	Endosulfan II	1.58	U
72-54-8	4,4'-DDD	4.36	U
1031-07-8	Endosulfan Sulfate	26.14	U
50-29-3	4,4'-DDT	4.75	U
72-43-5	Methoxychlor	69.70	U
7421-93-4	Endrin aldehyde	15.84	U
12789-03-6	Chlordane	39.60	U
8001-35-2	Toxaphene	198.00	U
12674-11-2	PCB-1016	47.52	U
1104-28-2	PCB-1221	95.04	U
11141-16-5	PCB-1232	47.52	U
53469-21-9	PCB-1242	47.52	U
12672-29-6	PCB-1248	47.52	U
11097-69-1	PCB-1254	47.52	U
11096-82-5	PCB 1260	47.52	U

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DATE COLLECTED : 8/24/93
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SEPTEMBER 15, 1993


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HUBERT WHEELER STATE SCHOOL

PESTICIDES & PCB ANALYSIS

METHOD SW-846 8080

SAMPLE ID: 2498-B3-3.5
LAB ID: 93081289

<u>CAS#</u>	<u>PARAMETER</u>	<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
319-84-6	α -BHC	1.62 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
319-85-7	β -BHC	2.43	U
319-86-8	δ -BHC	3.65	U
58-89-9	τ -BHC (Lindane)	1.62	U
76-44-8	Heptachlor	1.22	U
309-00-2	Aldrin	1.62	U
1024-57-3	Heptachlor epoxide	2.03	U
959-98-8	Endosulfan I	5.68	U
60-57-1	Dieldrin	1.62	U
72-55-9	4,4'-DDE	1.62	U
72-20-8	Endrin	2.43	U
33213-65-9	Endosulfan II	1.62	U
72-54-8	4,4'-DDD	4.46	U
1031-07-8	Endosulfan Sulfate	26.77	U
50-29-3	4,4'-DDT	4.87	U
72-43-5	Methoxychlor	71.40	U
7421-93-4	Endrin aldehyde	9.33	U
12789-03-6	Chlordane	40.57	U
8001-35-2	Toxaphene	202.83	U
12674-11-2	PCB-1016	48.68	U
1104-28-2	PCB-1221	97.36	U
11141-16-5	PCB-1232	48.68	U
53469-21-9	PCB-1242	48.68	U
12672-29-6	PCB-1248	48.68	U
11097-69-1	PCB-1254	48.68	U
11096-82-5	PCB 1260	48.68	U

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PESTICIDES & PCB ANALYSIS

METHOD SW-846 8080

SAMPLE ID: 2498-B6-3.5
LAB ID: 93081292

<u>CAS#</u>	<u>PARAMETER</u>	<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
319-84-6	α -BHC	15.32 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
319-85-7	β -BHC	22.98	U
319-86-8	δ -BHC	34.47	U
58-89-9	τ -BHC (Lindane)	15.32	U
76-44-8	Heptachlor	11.49	U
309-00-2	Aldrin	15.32	U
1024-57-3	Heptachlor epoxide	19.15	U
959-98-8	Endosulfan I	53.62	U
60-57-1	Dieldrin	15.32	U
72-55-9	4,4'-DDE	15.32	U
72-20-8	Endrin	22.98	U
33213-65-9	Endosulfan II	15.32	U
72-54-8	4,4'-DDD	42.13	U
1031-07-8	Endosulfan Sulfate	252.78	U
50-29-3	4,4'-DDT	45.96	U
72-43-5	Methoxychlor	674.08	U
7421-93-4	Endrin aldehyde	88.09	U
12789-03-6	Chlordane	383.00	U
8001-35-2	Toxaphene	1,915.00	U
12674-11-2	PCB-1016	459.60	U
1104-28-2	PCB-1221	919.20	U
11141-16-5	PCB-1232	459.60	U
53469-21-9	PCB-1242	459.60	U
12672-29-6	PCB-1248	459.60	U
11097-69-1	PCB-1254	459.60	U
11096-82-5	PCB 1260	459.60	U

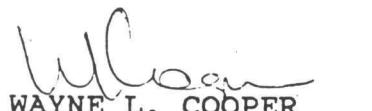
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HUBERT WHEELER STATE SCHOOL

PESTICIDES & PCB ANALYSIS

METHOD SW-846 8080

SAMPLE ID: 2498-B5-1.4
LAB ID: 93081291

<u>CAS#</u>	<u>PARAMETER</u>	<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
319-84-6	α -BHC	15.16 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
319-85-7	β -BHC	22.74	U
319-86-8	δ -BHC	34.11	U
58-89-9	τ -BHC (Lindane)	15.16	U
76-44-8	Heptachlor	11.37	U
309-00-2	Aldrin	15.16	U
1024-57-3	Heptachlor epoxide	18.95	U
959-98-8	Endosulfan I	53.06	U
60-57-1	Dieldrin	15.16	U
72-55-9	4,4'-DDE	15.16	U
72-20-8	Endrin	22.74	U
33213-65-9	Endosulfan II	15.16	U
72-54-8	4,4'-DDD	41.69	U
1031-07-8	Endosulfan Sulfate	250.14	U
50-29-3	4,4'-DDT	45.48	U
72-43-5	Methoxychlor	667.04	U
7421-93-4	Endrin aldehyde	87.17	U
12789-03-6	Chlordane	379.00	U
8001-35-2	Toxaphene	1,895.00	U
12674-11-2	PCB-1016	454.80	U
1104-28-2	PCB-1221	909.60	U
11141-16-5	PCB-1232	454.80	U
53469-21-9	PCB-1242	454.80	U
12672-29-6	PCB-1248	454.80	U
11097-69-1	PCB-1254	454.80	U
11096-82-5	PCB 1260	454.80	U

U = UNDETECTED

B = PRESENT IN BLANK

J = DETECTED, BUT BELOW PRACTICAL QUANTITATION LIMIT

SEPTEMBER 15, 1993

DATE COLLECTED : 8/24/93
DATE RECEIVED : 8/25/93
DATE ANALYZED : 9/09/93


WAYNE L. COOPER
LABORATORY DIRECTOR

ENVIRONMETRICS

GEOTECHNOLOGY, INC.
2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

PESTICIDES & PCB ANALYSIS

METHOD SW-846 8080

SAMPLE ID: 2498-B10-1.3
LAB ID: 93081294

<u>CAS#</u>	<u>PARAMETER</u>	<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
319-84-6	α -BHC	7.76 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
319-85-7	β -BHC	11.64	U
319-86-8	δ -BHC	17.46	U
58-89-9	τ -BHC (Lindane)	7.76	U
76-44-8	Heptachlor	5.82	U
309-00-2	Aldrin	7.76	U
1024-57-3	Heptachlor epoxide	9.70	U
959-98-8	Endosulfan I	27.16	U
60-57-1	Dieldrin	7.76	U
72-55-9	4,4'-DDE	7.76	U
72-20-8	Endrin	11.64	U
33213-65-9	Endosulfan II	7.76	U
72-54-8	4,4'-DDD	21.34	U
1031-07-8	Endosulfan Sulfate	128.04	U
50-29-3	4,4'-DDT	23.28	U
72-43-5	Methoxychlor	341.44	U
7421-93-4	Endrin aldehyde	44.62	U
12789-03-6	Chlordane	194.00	U
8001-35-2	Toxaphene	970.00	U
12674-11-2	PCB-1016	232.80	U
1104-28-2	PCB-1221	465.60	U
11141-16-5	PCB-1232	232.80	U
53469-21-9	PCB-1242	232.80	U
12672-29-6	PCB-1248	232.80	U
11097-69-1	PCB-1254	232.80	U
11096-82-5	PCB 1260	232.80	U

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(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

PESTICIDES & PCB ANALYSIS

METHOD SW-846 8080

SAMPLE ID: 2498-B7-6.8
LAB ID: 93081293

<u>CAS#</u>	<u>PARAMETER</u>	<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
319-84-6	α -BHC	1.60 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
319-85-7	β -BHC	2.41	U
319-86-8	δ -BHC	3.61	U
58-89-9	τ -BHC (Lindane)	1.60	U
76-44-8	Heptachlor	1.20	U
309-00-2	Aldrin	1.60	U
1024-57-3	Heptachlor epoxide	2.01	U
959-98-8	Endosulfan I	5.61	U
60-57-1	Dieldrin	1.60	U
72-55-9	4,4'-DDE	1.60	U
72-20-8	Endrin	2.41	U
33213-65-9	Endosulfan II	1.60	U
72-54-8	4,4'-DDD	4.41	U
1031-07-8	Endosulfan Sulfate	26.47	U
50-29-3	4,4'-DDT	4.81	U
72-43-5	Methoxychlor	70.58	U
7421-93-4	Endrin aldehyde	9.22	U
12789-03-6	Chlordane	40.10	U
8001-35-2	Toxaphene	200.50	U
12674-11-2	PCB-1016	48.12	U
1104-28-2	PCB-1221	96.24	U
11141-16-5	PCB-1232	48.12	U
53469-21-9	PCB-1242	48.12	U
12672-29-6	PCB-1248	48.12	U
11097-69-1	PCB-1254	48.12	U
11096-82-5	PCB 1260	48.12	U

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SEPTEMBER 15, 1993

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DATE ANALYZED : 9/08/93


WAYNE L. COOPER
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ST. LOUIS, MO 63146

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(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

PESTICIDES & PCB ANALYSIS

METHOD SW-846 8080

SAMPLE ID: 2498-B9-7.9
LAB ID: 93081296

<u>CAS#</u>	<u>PARAMETER</u>	PRACTICAL QUANTITATION LIMIT	<u>RESULTS</u>
319-84-6	α -BHC	7.89 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
319-85-7	β -BHC	11.83	U
319-86-8	δ -BHC	17.75	U
58-89-9	τ -BHC (Lindane)	7.89	U
76-44-8	Heptachlor	5.92	U
309-00-2	Aldrin	7.89	U
1024-57-3	Heptachlor epoxide	9.86	U
959-98-8	Endosulfan I	27.60	U
60-57-1	Dieldrin	7.89	U
72-55-9	4,4'-DDE	7.89	U
72-20-8	Endrin	11.83	U
33213-65-9	Endosulfan II	7.89	U
72-54-8	4,4'-DDD	21.69	U
1031-07-8	Endosulfan Sulfate	130.13	U
50-29-3	4,4'-DDT	23.66	U
72-43-5	Methoxychlor	347.01	U
7421-93-4	Endrin aldehyde	45.35	U
12789-03-6	Chlordane	197.17	U
8001-35-2	Toxaphene	985.83	U
12674-11-2	PCB-1016	236.60	U
1104-28-2	PCB-1221	473.20	U
11141-16-5	PCB-1232	236.60	U
53469-21-9	PCB-1242	236.60	U
12672-29-6	PCB-1248	236.60	U
11097-69-1	PCB-1254	236.60	U
11096-82-5	PCB 1260	236.60	U

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ENVIRONMETRICS

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2258 GRISSOM DRIVE
ST. LOUIS, MO 63146

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

ATTN: SAM BRENNKE

INVOICE # 22943
PO # 6575
PROJECT # 2498.01.3120.01
HUBERT WHEELER STATE SCHOOL

PESTICIDES & PCB ANALYSIS

METHOD SW-846 8080

SAMPLE ID: 2498-B8-1.3
LAB ID: 93081295

<u>CAS#</u>	<u>PARAMETER</u>	<u>PRACTICAL QUANTITATION LIMIT</u>	<u>RESULTS</u>
319-84-6	α -BHC	15.60 $\mu\text{g}/\text{kg}$	U $\mu\text{g}/\text{kg}$
319-85-7	β -BHC	23.40	U
319-86-8	δ -BHC	35.10	U
58-89-9	τ -BHC (Lindane)	15.60	U
76-44-8	Heptachlor	11.70	U
309-00-2	Aldrin	15.60	U
1024-57-3	Heptachlor epoxide	19.50	U
959-98-8	Endosulfan I	54.60	U
60-57-1	Dieldrin	15.60	U
72-55-9	4,4'-DDE	15.60	U
72-20-8	Endrin	23.40	U
33213-65-9	Endosulfan II	15.60	U
72-54-8	4,4'-DDD	42.90	U
1031-07-8	Endosulfan Sulfate	257.40	U
50-29-3	4,4'-DDT	46.80	U
72-43-5	Methoxychlor	686.40	U
7421-93-4	Endrin aldehyde	89.70	U
12789-03-6	Chlordane	390.00	U
8001-35-2	Toxaphene	1,950.00	U
12674-11-2	PCB-1016	468.00	U
1104-28-2	PCB-1221	936.00	U
11141-16-5	PCB-1232	468.00	U
53469-21-9	PCB-1242	468.00	U
12672-29-6	PCB-1248	468.00	U
11097-69-1	PCB-1254	468.00	U
11096-82-5	PCB 1260	468.00	U

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SEPTEMBER 15, 1993


WAYNE L. COOPER
LABORATORY DIRECTOR

DATE COLLECTED : 8/24/93
DATE RECEIVED : 8/25/93
DATE ANALYZED : 9/09/93

CHAIN OF CUSTODY RECORD

COC Record # 1361

P.O. # 6575

Project No. 2498-01-3100.01 Project Name Hubert Wheeler State School

Shipper Name: Geotechnology, Inc.

Address: 2258 GRISSOM DRIVE, ST. LOUIS, MO. 63146

Samplers Signature: Sam Breunke Telephone # (314) 997-7440

Contact: Sam Breunke Telephone # (314) 997-7440

Collectors Sample #	Date	Sample Type	No. of Containers	Analysis	Remarks
2498-B1-3,7	8/23/93	Soil	2	Priority Pollutant (metals, volatiles, semi-volatiles, pesticides, PCPs, cyanides, phenols)	Normal T.A.
2498-B2-8,10	8/23/93	Soil	2	" " "	"
2498-B3-3,5	8/24/93	Soil	2	" " "	"
2498-B4-6,8	8/24/93	Soil	2	" " "	"
2498-B5-1,4	8/24/93	Soil	2	" " "	"
2498-B6-3,5	8/24/93	Soil	2	" " "	"
2498-B7-6,8	8/24/93	Soil	2	" " "	"
2498-B10-1,3	8/24/93	Soil	2	" " "	"
2498-B8-1,3	8/24/93	Soil	3	Priority Pollutant (metals, volatiles, semi-volatiles, pesticides, PCPs, cyanides, phenols), Ozone	"
2498-B9-7,9	8/24/93	Soil	3	Priority Pollutant (metals, volatiles, semi-volatiles, pesticides, PCPs, cyanides, phenols), Ozone	"

Receiver Name: 1. Environ metrics

2. _____
(Company Name & Address)

Chain of Possession:

From: Sam Breunke 8/25/93
(Name & Date/Time)

To: _____

Sam Breunke 8-25-93
(Name & Date/Time) 3:48

From: _____

To: _____

White copy to Laboratory • Yellow copy to File • Pink copy to Job File

ENVIRONMETRICS

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

CUSTODY TRANSFER RECORD/LABORATORY WORK REQUEST

COMPANY Entertainment CONTACT Sam Brooks PROJECT NO. 2120.01-3170.01
ADDRESS 2258 Shadeland St. DATE 8-25-93 Page 1 of 1
CITY/STATE/ZIP ST. Louis Mo 63146 P.O. NO. 6575
PHONE (314) 997-7440 DUE DATE 9-6-93
FAX () 44

SPECIAL INSTRUCTIONS:

Maria

SAMPLE IDENTIFICATION

ITEM	LAB NO.	SITE CODE/ SAMPLE DESCRIPTION	DATE COLLECTED	PRESERV.	CONTAINER
1	93081287	2448-B1-3.7	8-23-93	-	20L 16x6x7
2	93081288	2448-B2-8.10	8-23-93	-	"
3	93081289	2448-B2-3.5	8-24-93	-	"
4	93081290	2448-B4-6.8	8-24-93	-	"
5	93081291	2448-B5-1.4	8-24-93	-	"
6	93081292	2448-C6-3.5	"	-	"
7	93081293	2448-B7-6.8	"	-	"
8	93081294	2448-B10-1.3	"	-	"
9	93081295	2448-B8-1.3	"	-	"
10	93081296	2448-B9-7.9	"	-	"
11		"			
12		W F A M	10	10	
13					
14					
15					
16					

ITEMS TRANSFERRED	RELINQUISHED BY	Date	Time	RECEIVED BY	Date	Time	REASON for TRANSFER
				Jeff Marx	8/25	4:15	Left
	Chitole white	8/27	12:05	CD - T - C	8/26	12:05	11:15 late
	C D Dotson	8/31	9:34	Jeff Marx	8/31	9:34	lecture
1-10	Jeff Marx	8/31	9:34	Jeff Marx	8/31	9:33	magazine
	Jeff Marx	8/25	12:05	CD - T - C	8/25	10:25	

APPENDIX D
RISK-BASED ACTION LEVEL CALCULATIONS

ENVIRONMETRICS

CUSTODY TRANSFER RECORD/LABORATORY WORK REQUEST

2345 Millpark Drive
Maryland Heights, MO 63043
(314) 427-0550

COMPANY _____ CONTACT _____ PROJECT NO. _____ Page _____ of _____
ADDRESS _____ DATE _____ P.O. NO. _____
CITY/STATE/ZIP _____ DATE DUE _____

SPECIAL INSTRUCTIONS: _____

RISK BASED ACTION LEVEL CALCULATIONS - CARCINOGENIC CONSTITUENTS

$$C_m = [R \times W \times LT] / [CSF \times I \times A \times ED]$$

Where:

- C_m = action level in medium (units are medium-dependent)
 R = assumed risk level
 (10^{-6} for class A & B)
 (10^{-5} for class C)
 W = body weight (kg)
 LT = assumed lifetime (70 year lifetime)
 CSF = carcinogenic slope factor (mg/kg/day^{-1})
 I = intake assumption (.1 g/day and 2 l/day)
 A = absorption factor (unitless)
 ED = exposure duration in years (70 years)

From EPA IRIS System: Benzo(a)pyrene

Established Carcinogenic Slope Factor = 7.3 mg/kg/day

$$\begin{aligned} C_m &= [10^{-6} \times 70 \text{ kg} \times 70 \text{ yrs}] / [7.3(\text{mg/kg/day})^{-1} \times 0.1(\text{g/day}) \times .001 \text{ kg/g} \times 1 \times 70 \text{ yrs}] \\ &= 0.096 \text{ mg/kg soil} \end{aligned}$$

From EPA Region VII Interim Policy Procedures: Benzo(b)fluoranthene

Calculated Carcinogenic Slope Factor = 0.73 mg/kg/day

$$\begin{aligned} C_m &= [10^{-6} \times 70 \text{ kg} \times 70 \text{ yrs}] / [0.73(\text{mg/kg/day})^{-1} \times 0.1(\text{g/day}) \times .001 \text{ kg/g} \times 1 \times 70 \text{ yrs}] \\ &= 0.96 \text{ mg/kg soil} \end{aligned}$$

From EPA Region VII Interim Policy Procedures: Chrysene

Calculated Carcinogenic Slope Factor = 0.073 mg/kg/day

$$\begin{aligned} C_m &= [10^{-6} \times 70 \text{ kg} \times 70 \text{ yrs}] / [0.073(\text{mg/kg/day})^{-1} \times 0.1(\text{g/day}) \times .001 \text{ kg/g} \times 1 \times 70 \text{ yrs}] \\ &= 9.6 \text{ mg/kg soil} \end{aligned}$$

Note: The exposure assumptions and calculations used in deriving Action Levels were obtained from proposed Subpart S of 40 CFR 264 as contained in the July 27, 1990 Federal Register.

Region VII EPA has adopted an interim policy which considers Carcinogenic Poly Aromatic Hydrocarbons (PAH's) to have Carcinogenic Equivalency Factors (CEF's) relative to benzo(a)pyrene, the only PAH which has an established carcinogenic slope factor. These CEF's are 0.1 for benzo(b)fluoranthene and 0.01 for chrysene. The current carcinogenic slope factor for benzo(a)pyrene is 7.3 mg/kg/day. To obtain calculated carcinogenic slope factors, one multiplies the carcinogenic slope factor of benzo(a)pyrene times the CEF of the given PAH.

Thus: Calculated Carcinogenic Slope Factor (CSF) for benzo(b)fluoranthene

$$\text{CSF} = 0.1 \times 7.3 \text{ mg/kg/day} = 0.73 \text{ mg/kg/day}$$

Calculated Carcinogenic Slope Factor (CSF) for chrysene

$$\text{CSF} = 0.01 \times 7.3 \text{ mg/kg/day} = 0.073 \text{ mg/kg/day}$$

RISK BASED ACTION LEVEL CALCULATIONS - SYSTEMIC TOXICANTS

$$C_m = [Rfd \times W] / [I \times A]$$

Where:

- C_m = action level in medium (units are medium-dependent)
 Rfd = reference dose (mg/kg/day)
 W = body weight in kg (16 kg child)
 I = intake assumption soil (.2 grams for child)
 A = absorption factor (unitless)

From EPA IRIS System: Fluoranthene

Established Reference Dose (Rfd) = 0.04 mg/kg/day

$$\begin{aligned} C_m &= [0.04 \text{ mg/kg/day} \times 16 \text{ kg}] / [.2 \text{ g} \times .001 \text{ kg/g} \times 1] \\ &= 3,200 \text{ mg/kg soil} \end{aligned}$$

From EPA IRIS System: Pyrene

Established Reference Dose (Rfd) = 0.02 mg/kg/day

$$\begin{aligned} C_m &= [0.02 \text{ mg/kg/day} \times 16 \text{ kg}] / [.2 \text{ g} \times .001 \text{ g/kg} \times 1] \\ &= 1,600 \text{ mg/kg soil} \end{aligned}$$

Note: The exposure assumptions and calculations used in deriving Action Levels were obtained from proposed Subpart S of 40 CFR 264 as contained in the July 27, 1990 Federal Register.

LIMITATIONS OF REPORT

1. This report has been prepared on behalf of and for the exclusive use of the addressee, solely for use in assessing conditions at the site. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of Geotechnology. However, Geotechnology acknowledges and agrees that the report may be conveyed to the regulatory agencies as desired or to the lending institutions and prospective buyers associated with the sale of the property.
2. The assessment was performed in general accordance with appropriate state guidelines and generally accepted practices of other consultants undertaking similar assessments at the same time and in the same geographical area, and Geotechnology observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. The findings and conclusions stated herein must be considered not as scientific certainties, but rather as professional opinions concerning the significance of the limited data gathered during the course of the assessment. No other warranty, express or implied, is made. Specifically, Geotechnology does not and cannot represent that the site contains no hazardous waste or material, oil (including petroleum products) or other latent condition beyond that observed by Geotechnology during the assessment.
3. The observations described in the Report were made under the conditions stated therein. The conclusions presented in the Report were based solely upon the services described therein, and not on scientific tasks or procedure beyond the scope of described services. The work described in this report was carried out in accordance with the Terms for Geotechnology's Services which accompanied the proposal.
4. In the event that information is developed relative to environmental or hazardous waste or material issues at the site and not contained in this report, such information shall be brought to Geotechnology's attention. Geotechnology will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this Report.
5. The conclusions and recommendations contained in this Report are based in part upon the data obtained from a limited number of soil and/or groundwater samples obtained from widely spaced sampling. The identified presence of contaminated soil is limited to the extent that contaminated soil could be identified by color, smell, instrumentation and sampling and testing. There is a potential for contaminated soil above the indicated concentrations to occur elsewhere on the site. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, and/or if changes are made in regulations, it will be necessary to reevaluate the conclusions and recommendations of this report.

APPENDIX E
LIMITATIONS OF REPORT

6. Quantitative laboratory testing was performed as part of the site assessment by an outside laboratory, Geotechnology has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.
7. Chemical analyses have been performed for specific parameters during the course of this assessment as described in the text. However, it should be noted that additional chemical constituents not searched for during the assessment could be present in soil and/or groundwater at the site.